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OF THE

INTERNAL IMPROVEMENTS

ALREADY MADE

BY PENNSYLVANIA;

WITH

**OBSERVATIONS UPON HER PHYSICAL AND FISCAL MEANS FOR THEIR
EXTENSION; PARTICULARLY AS THEY HAVE REFERENCE TO THE FU-
TURE GROWTH AND PROSPERITY OF**

PHILADELPHIA.

ILLUSTRATED BY MAPS

OF THE HEAD-WATERS OF THE PRINCIPAL RIVERS OF THE STATE:

BY SAMUEL BRECK,

**ONE OF THE MEMBERS OF THE SENATE OF PENNSYLVANIA, FOR THE DISTRICT
COMPOSED OF THE CITY AND COUNTY OF PHILADELPHIA.**

PHILADELPHIA:

J. Maxwell, Printer.

1818.



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OBSERVATIONS

ON THE

INTERNAL IMPROVEMENTS OF PENNSYLVANIA,

AND

FUTURE GROWTH OF PHILADELPHIA.

1695738

THE OBJECT OF THIS PAMPHLET IS TWO-FOLD:

FIRST.—*To endeavour to vindicate the aspersed reputation of Pennsylvania from the general accusation of indifference with regard to her internal improvements; and,*

SECONDLY.—*To show the superior situation of Philadelphia, geographically considered, for the attraction of the great and increasing trade of the countries bordering on the Susquehanna, the Lakes, and the Western rivers.*

ON the first of these points, there has prevailed a very general silence. Thousands could have said, much better than myself, what I am desirous to communicate; but no one having stepped forth to rectify the erroneous opinions which exist both abroad and at home in relation to the efforts made by the Legislature and the people, for the advancement of the interior of this Commonwealth, I have ventured, with great diffidence, to lay before the public, such proofs as I possess, in order to contradict these disadvantageous reports. We listen with patience, to the New-England, New-York, and Maryland writers, whose praises on their own doings, rise, not unfrequently, to the most exalted panegyric. We republish these praises, in perfect good nature, notwithstanding they are commonly accompanied by side-blows at *poor Pennsylvania*, which those writers affect to pity, because it is possessed, as they say, by a government and people supine and sluggish. If silence gives consent, we must indeed be the contemptible race hinted at; for in relation to these accusations, editors and writers seem tongue-tied. To disprove such discreditable allusions, as far as my humble efforts could reach, I obtained a place for a few numbers upon this subject, in a respectable Newspaper of this city; but finding it susceptible of considerable development, and supposing that it might be made somewhat interesting by condensing it into an unbroken form, I have incorporated the substance of these numbers into the matter which compose the following sheets.

My aim is to show that Pennsylvania has *not* been stationary in her improvements; but, that on the contrary, she has achieved very much within the last six years;—that she has with great public spirit, granted numerous charters for turnpike roads, bridges, canals, &c. the major part of which she has aided with funds to an amount exceeding two millions of dollars;—that her public seminaries and primary schools have been patronised by laws and by money;—that her agriculture has improved, and her general polity been attended to by its Legislature with skill and vigilance;—in a word, that this beautiful and wealthy state is second to none, either in liberality for past, or means for future expenditure.

In the year 1810, William Duane, Jun. Esq. of Philadelphia, published a pamphlet full of useful information upon the *then* state of the interior of this Commonwealth, with a masterly exhibition of its capabilities, if properly exerted. This book cannot be too extensively circulated at *this moment*, when the *Philadelphia* public are listening to, and acting in measures, big with the future prosperity of our city.

The spirit of internal improvement, which animated the Legislature soon after the appearance of Mr. Duane's pamphlet, may fairly be attributed, in great part, to that gentleman's writings. That spirit has continued with a zeal proportioned to the funds of the State, until the last session; that is to say, with such funds as could be commanded without selling her bank stock. Whether this stock should be broken in upon or not, I propose to consider hereafter. That inertness which Mr. Duane complained of in 1810, has *now* disappeared. It must be owned, however, that there was *then* cause for such a complaint. But the subsequent exertions, liberality, and intelligence of the Legislature, ought to have removed those sentiments, which though applicable to our rulers in 1810, have become unjust in 1818. It is the continuation of such unfavourable impression, which I regret, and which it shall be my endeavour to eradicate.

If it be asked what the Legislature has done? I answer, that as early as 1808, an act was passed, authorizing the Governor to subscribe three thousand four hundred shares to the stock of six or seven turnpike companies then incorporated; that in April 1811, another act was passed appropriating eight hundred and twenty-five thousand dollars to the following objects:

A turnpike road from Harrisburg to Pittsburg,	-	350,000
Ditto from Northumberland to Waterford, in the county of Erie,	-	200,000
Downingstown, Ephrata and Harrisburg road	-	5,000
Millford and Owego ditto,	-	20,000
Harrisburg bridge over the Susquehanna,	-	90,000
Northumberland ditto,	-	50,000
Columbia ditto ditto,	-	90,000
M'Call's ferry ditto ditto,	-	20,000

\$ 825,000

To M'Call's ferry bridge company, a further sum of nine thousand dollars was lent upon mortgage; which by an act of last winter was converted into a free gift.

By an act of the same date, the following sums were voted for the following purposes:

For opening a road in Somerset county,	-	-	1,500
For other roads in said county,	-	-	1,600
For ditto in Cambria county,	-	-	500
For ditto in Franklin,	-	-	600
For ditto in Mifflin,	-	-	600
For ditto in Northumberland,	-	-	750
For ditto in Bedford,	-	-	1,400
For ditto in Cumberland,	-	-	600
For ditto in Wayne,	-	-	1,000
For ditto in Northampton,	-	-	1,000
For ditto in Dauphin,	-	-	700
For ditto in Tioga,	-	-	500
For ditto in Ontario,	-	-	750
For ditto in Erie,	-	-	450
For ditto in Crawford,	-	-	600
For ditto in Conewango,	-	-	300
For ditto in Venango,	-	-	500
For ditto in Butler,	-	-	700
For ditto in Allegheny,	-	-	1,000
For ditto in Indiana,	-	-	1,400
For ditto in Clearfield,	-	-	700
For ditto in Mercer,	-	-	600
For ditto in Beaver,	-	-	500
For ditto in Centre,	-	-	680
For ditto in Westmoreland,	-	-	1,400
For ditto in Adams,	-	-	600
For ditto in Green,	-	-	300

The Inspectors of the State Prison in Philadelphia received

by the same law, a donation for the new jail of - 5,000

\$ 25,550

It was about this time the Legislature began to distribute its *solid* bounties. Laws had been obtained many years before for the construction of roads, canals, &c.; but now large sums were drawn from the treasury in aid of these useful objects. The appropriations, as we see, were in this single year eight hundred and fifty thousand five hundred and fifty dollars!

The war with England took place the next year: it abated, but did not destroy this good disposition; for notwithstanding the *State* expenses of that war amounted to* nine hundred and nineteen thousand dollars, for which she makes no claim on the general government, yet the Legislature appropriated in the years which intervened between 1812 and 1816, for internal improvements, public works, academies, schools, &c. the sum of eight hundred

* Report of the committee of ways and means, last session.

and sixteen thousand eight hundred and eighty-five dollars! That is to say, in four years, three of which we were in a state of warfare, and obliged to contribute largely for public defence in men and money, the government of this Commonwealth, so much—so shamefully—so unjustly abused for its apathy and disregard of the general welfare of its people, voted an average *annual* sum of upwards of two hundred thousand dollars for public improvements!—

In addition to the foregoing, the following specific appropriations were voted in the session of 1816—17; appropriations which I give here in detail, to show the wide and liberal view the legislature took of the wants of the whole commonwealth, without sectional or political partialities.

APPROPRIATIONS MADE BY THE LEGISLATURE AT THE SESSION OF 1816—17.*

TURNPIKE ROADS.

Greensburg and Pittsburg, per act of 24th March			
1817, 400 shares, at 50 dollars per share,	20,000		
Stoystown and Greensburgh 650 ditto, -	32,000		
Bedford and Stoystown, 500 ditto, -	25,000		
Chambersburgh and Bedford, 700 ditto, -	35,000		
Harrisburg and Chambersburg, 300 ditto,	15,000	127,500	
York and Gettysburgh, 150 ditto, at 100 dollars per share, - - -	15,000		
Pittsburg and Butler, 700 at 50 ditto, - - -	35,000		
Reading to Hummelston, 300 ditto, - - -	15,000		
Wilkesbarre and Easton, 300 ditto, -	15,000		
Cayuga and Susquehanna, 300, at 20 dollars,	6,000		
Bellefont and Easton, 200, at 50 do. -	10,000		
Blue Ball and Binkley's, 50 ditto, - -	2,500		
Bridgewater and Wilkesbarre, 200 ditto, -	10,000		
Milford and Owego, 200 at 25 dollars, -	5,000		
Jerseyshore to Condersport, 400 at 50 ditto,	20,000		
Gap and Newport, 200 at 50 ditto, -	10,000		
Huntingdon and Cambria, 600 at ditto -	30,000		
Beaver to State line, - - -	15,000		
Downingstown and Ephrata, - - -	20,000		
Perkiomen and Reading, - - -	13,000		
Morgan and Churchtown, - - -	5,000	226,500	
			\$ 354,000

BRIDGES.

Bridge over Buffalo per act 24th March, 1817.			
ditto French creek, - - -	2,000		
ditto Great Conango, - - -	1,500		
ditto Loyalhanna, - - -	2,000	6,100	
			\$ 360,000

* Report on the finances of the Commonwealth by the Auditor General.

Amount brought over, - - - - 360,000

COMMON ROADS.

Logan's Narrows to Presque Isle, per act 24th March, 1817.	-	-	-	800	
Block house road to State line, ditto,	-	-	-	2,000	
Millersberg to Mohontongo, ditto,	-	-	-	700	
Mohontongo to Sunbury, ditto,	-	-	-	1,300	
State road through Somerset, Fayette and Green, ditto,	-	-	-	4,000	
Frankstown to Conewagh, ditto,	-	-	-	1,500	
State line Warren county, to Meadville, ditto,	-	-	-	3,000	
Easton to Adam Romigs, ditto,	-	-	-	2,000	
Blair's Gap to the Western boundary of the State, ditto,	-	-	-	3,000	
Over white Deer mountain, ditto,	-	-	-	500	
Indiana to Pittsburg, ditto,	-	-	-	500	
ditto to ditto, ditto,	-	-	-	500	
Jonestown to Wilkesbarre	-	-	-	300	
Franklin county line to Sidling hill, ditto,	-	-	-	400	
Strasburg to Letter Kenny, ditto,	-	-	-	200	
Carlisle to Littleton, ditto,	-	-	-	1,600	
In Mercer county, ditto,	-	-	-	2,000	
Glade road in Somerset to Jones' mill, Westmoreland, ditto,	-	-	-	1,000	
Lewistown, across the shade and Black Log mountains, ditto,	-	-	-	500	25,800

RIVERS AND CREEKS.

Delaware river, per act 13th March, 1817,	10,000	
Susquehannah river, ditto,	3,000	
ditto, Ohio for viewing, ditto,	2,000	
Allegheny river, by act 24th March, 1817,	1,600	
Schuylkill ditto, ditto,	50,000	
Monongahela ditto, ditto,	30,000	
Lehigh ditto, ditto,	30,000	
Conewaugh ditto, ditto,	1,500	
Conewango creek, ditto,	200	
French ditto, ditto,	800	
Mahoning ditto, ditto,	800	
Red Bank ditto, ditto,	1,000	
Toby's ditto, ditto,	200	
Big Swatara, ditto, ditto,	300	131,400

MISCELLANEOUS.

Piers at Chester, Delaware, ditto,	8,000	
Wharves at Kittaning, ditto,	700	8,700
West Chester Academy, ditto,	1,000	
Allegheny College, ditto,	2,000	
Wellsborough Academy, ditto,	2,000	5,000

\$ 531,000

The appropriations of the last winter were not so large; yet when it is considered that much of those sums formerly voted had not been called for; in some measure owing to the private subscription to the objects which they were intended to aid, not being filled to the amount required by law, the sum voted last session is generous and respectable. It is as follows:

For bridges at York and Milton, a free gift to replace those lost by the floods last fall,	11,000
Academy at Harrisburg - - - -	1,000
Penitentiary at Pittsburgh, - - - -	60,000
Miscellaneous, perhaps about - - - -	8,000

In addition to these, the Legislature has made it a rule to give two thousand dollars to each of the counties, in aid of their academies: it may be considered as a kind of pledge; and as only about ten counties out of fifty have received that sum, I view the State as willing to grant a like sum to the other forty when called for, and I put down therefore as an appropriation under the head of academies - -

80,000 160,000

By an act passed the 19th of March, 1816, this Commonwealth gave to the charity hospital at New-Orleans the sum of five thousand dollars, upon the express condition that it be exclusively destined to give to the buildings of said hospital an extent, which might enable them to receive a greater number of sick; and they also by the same law appropriated and granted to the trustees of the said hospital, for the space of ten years, an annuity of five hundred dollars a year, commencing January the first, 1816, to be applied by, and under the direction of said trustees, solely and exclusively to and for the relief of such persons as are employed in the trade from Pennsylvania, attacked by disease in New-Orleans, provided they are not able to defray the expenses of the hospital themselves; these I put down at -

10,000

Some incidental appropriations to the use of the Penitentiary and Hospital in Philadelphia—made within the last six years, - - -

20,000 190,000

These appropriations, all voted since 1811, will stand thus:—In the winter of 1811, for the use of incorporated companies, - - -

825,000

For private roads, &c., - - -

25,550 850,550

During the war with England for like purposes, - - -

816,885

During the session of 1816—17, - - -

531,000

The appropriations of last winter, including those for academies, prison at New-Orleans, &c. -

190,000

\$ 2,368,435

Making a grand total of two millions, three hundred and eighty-eight thousand, four hundred and thirty-five dollars, besides paying the ordinary expenses of government, supporting a number of revolutionary soldiers, on an annual pension of eighteen thousand dollars, and for the last three or four years bearing a militia expense of near forty thousand dollars per annum!!

Both Houses of the Legislature were disposed to grant considerable sums last winter; but unfortunately they differed as to the objects to which they were to be applied, and thus the Senate rejected a bill from the House of Representatives, granting one per cent for *six* years on sales by auction in Philadelphia, for the use of the Schuylkill navigation; a grant which would probably have yielded four hundred and eighty thousand dollars: Eighty thousand being the amount paid in one year to the treasury for a like duty: And thus, the House of Representatives refused to concur in a bill sent from the Senate for the relief of Dickinson college, granting to that institution the remission of a debt to the Commonwealth of five thousand dollars, together with a free gift of three thousand, and an annuity for ten years of two thousand. A proportional aid was likewise voted by the Senate to the two western colleges of Washington and Jefferson. These bills were lost, not from an indisposition to patronize public objects; but for want of harmony as to the application of the money.

Having thus taken a brief view of the disbursements from the public treasury, let us next consider what has been performed by individuals;—let us see what the enterprize and labours of chartered companies and others, stimulated by those generous grants and under the guidance of wholesome laws, have done and are now doing. For this purpose, I shall examine the subject somewhat minutely, by dividing it into

1st—Roads.

2d—Bridges.

3d—Rivers and Canals.

4th.—Seminaries and Schools, to which I shall add as a fifth item, a view of the finances of the commonwealth, and—

6th—A glance at our internal regulations as established according to the policy of the state government.

TURNPIKE ROADS.

It must be held in remembrance by the reader, that all Turnpikes made in Pennsylvania, are literally *artificial roads*; that is to say, composed of broken stones of the hardest substance, taken from quarries, oft-times many miles distant, and formed into a solid pavement of Granite, Lime-stone or Marble suitable for heavy transportation wagons, of three to five tons weight, and usually drawn by four or six horses. Roads thus constructed are of course, very expensive, and cost, one ~~year~~ with another, somewhere about six thousand dollars. This average I presume to be correct, because the turnpike from Philadelphia to Columbia, a distance of seventy-two miles, cost more than seven thousand dol-

lars per mile; because the road across the Laurel Hill in the Alleghany mountains, cost per mile more than ten thousand dollars; so did the Lancaster-Schuylkill bridge turnpike, Germantown, and other roads in the neighbourhood of the city, whilst many sections of those running from Harrisburg to Chambersburg, and thence west, have been contracted for at about four thousand. The true medium therefore is perhaps the one I have assumed.

These permanent roads, very many of which are worthy of the epithet *Roman*,—so solidly formed, and constructed at so much expense, must not be confounded with those which have been so hastily and so extensively made in New-England and New-York.—There the nature of the soil and the custom of using light carriages, contribute both to the formation and preservation of the roads. Nothing more is required to make them, than to level the hills to four degrees, form ditches or drains on each side, and raise the centre so as to carry off the water; all which is executed rapidly and cheaply—perhaps at a less average cost than five hundred dollars a mile. The Pennsylvania roads, on the contrary, are made with the hardest stones of the country, and so constructed that, with occasional repairs, they resist the pressure of her numerous heavy wagons—the frosts of winter, and the torrents of summer; and at every stream, are united by stone bridges, which cost from five hundred to fifteen thousand dollars. These roads, which require nothing but twelve inch wheels to make them perfect, will shortly connect the principal points of the commonwealth, thus:

From Philadelphia through Lancaster, York, &c.	
to Pittsburg, - - - - -	300 miles
From York Haven to Maryland line - - -	24
From Lancaster to Chambersburg through Harris-	
burg, - - - - -	84
From Downingstown through Ephrata to Harrisburg,	66
From Philadelphia to Harrisburg through Reading,	112
From Reading to Sunbury, - - - - -	66
From Berwick to Lausanne on the Lehigh, - - -	30
From Philadelphia to Baltimore by Port Deposit,	50
From Philadelphia to Perkiomen through Norristown,	30
From Philadelphia to Trenton, including Bustleton,	40
From Spring-house Tavern, Willow Grove, &c.	20
Sundry other roads near Berwick, Wilkesbarre, Get-	
tysburg, Easton, Huntingdon, &c. - - -	220
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Making near one ^m thousand and fifty miles of paved road, with no ascent or descent exceeding four degrees, and which cost about six millions of dollars, ^{or} towards which the state has paid, or is pledged to pay, about one million two hundred thousand dollars.

The parent of all the turnpikes in America, is that which leads from this city to Lancaster, sixty-two miles long, and which was

completed in 1794. Since then, *only twenty-four years*, an addition of nearly one thousand miles, in part over a mountainous country, has been made, or is in progress of completion. The consequence is, that wagons now transport, even in winter, at the rate of twenty-two miles a day, with four horses, a burthen equivalent to twenty-eight barrels of flour, instead of fourteen, which formerly made a load; and this too without the danger of being mired and frozen up for many weeks, as frequently happened in winter, before the turnpikes were established. The Transporting Company, lately incorporated, will, with their ten mile relays, travel much faster. Already the annual wagon-freight between the Ohio and this city, is computed at a million of dollars. When the roads are completed, the totality of transport money, on all the existing turnpike roads of this state, will probably be double that sum. Many of these roads give the stockholders six per cent.; some have divided as high as eight. Too much praise cannot be given to these great exertions: they have changed the face of the country.

BRIDGES.

It is in bridges that Pennsylvania appears superior to her neighbours. The Schuylkill exhibits some beautiful specimens of hydraulic architecture. The bridges at Market-street and at Sheridan's, are noble structures; yet they cannot be advantageously compared with the gigantic fabrics which stretch on arches and piers across the Susquehanna. The mind contemplates with wonder those fine monuments of the arts, conceived and executed with a boldness unparalleled in any part of the universe. Yes, in these useful improvements, Pennsylvania eclipses not only her sister states, but even the Eastern hemisphere. In order to prove it, I will show the dimensions of the principal bridges of the old world, and afterwards compare them with those of our own state.

Nimrod is said to have built a bridge of one arch, over the Euphrates of six hundred and sixty feet long; and we are told of another bridge, now standing in China, seven hundred and fifty feet high, with a cord of six hundred feet. But as the first of these is involved in the fable of Babylonian history, and the second has never been seen by any European writer, the probability is that the extent of both has been greatly exaggerated, more especially that of the latter, since all Chinese arches, described by sir George Staunton and Mr. Ellis, appear to be small. In Bootan in Asia, there are some curious bridges of rope and chain from one hundred and fifty to two hundred and twenty feet long; but they are merely make-shifts; the one for sliding over precipices in a basket, as among the bird-egg hunters in Scotland, and the other for foot passengers.

Europe displays, of course, in this art, a greater variety, much more solidity, and much more beauty than Asia. Some of her most curious bridges are in Switzerland. One of these, of wood and roofed, stands at Wettingen, and has an arch of two hundred

feet span; one still larger stood at Schaffhausen, built by the same architect, *Ulrich Grubenman*, and extended on *two* arches, about four hundred feet. This bridge was burnt in the late wars by the French. The famous marble bridge at Venice—the Rialto, is but one hundred feet span. In Russia, Germany, France, Portugal and Spain, there are several fine bridges of wood and stone extending from two to four thousand feet in length; but none with a larger arch than *one hundred and seventy feet*.

The largest arch in Europe is to be found in England. It is at Wearmouth, and is two hundred and thirty-six feet span. Not another arch exists in Great Britain so long by one hundred feet.

In America we have the following remarkable bridges out of Pennsylvania.

Charles river bridge, near Boston, 1503 feet long, on 75 piers; West Boston, over the same river, 3480 feet long, on 180 piers; Lake Cayuga bridge 5280 feet long, on 210 piers; and one of similar construction over the Potomac at Washington. All these bridges are of timber and uncovered. In New Hampshire and Massachusetts there are several beautiful bridges, one of which had, till lately, the largest arch in the world: this was over the Piscataqua, and measured 244 feet. This arch, as may be seen, exceeded the largest European arch by eight feet.

Let us now examine the bridges in *Pennsylvania*. We shall find them universally built upon stone piers, and very generally protected from the weather by handsome roofs. These shingle covers, when renewed every 30 or 40 years, give a durability to the wooden superstructure almost equal to those which are constructed wholly of stone. But durability and strength are but a part of their superior attributes; for they exceed all others in America, by the breadth of arc, chastity of style, and boldness of execution.

The cord of the arch of the Lancaster Schuylkill bridge is 340 feet—almost 100 feet more than the largest which existed any where before it was built; and even this has been exceeded by one of our own bridges over the Susquehanna, at M'Call's ferry, the arc of which extended to 366 feet straight cord.

These Pennsylvanian bridges have been erected at vast expense. For instance,

The bridge at Market Street cost	-	-	-	275,000
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That at Columbia, which is a mile and a quarter long, and covered	-	-	-	230,000
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That at Harrisburg, upon 12 arches of 220 to 240 feet each, with an excellent cover, the windows of which are glazed	-	-	-	195,000
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Bridge at Northumberland, likewise covered	-	-	-	98,500
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Bridge at Sheridan's, near Philadelphia, also covered	-	-	-	100,000
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Three over the Delaware, four over the Schuylkill, five over the Susquehanna, besides those enumerated, and two over the western waters near Pittsburg, estimated at	-	-	-	810,000
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\$1,698,500

The total cost of these bridges of the first class, and those of the second are both numerous and expensive, amounts then to one million, six hundred and ninety-eight thousand and five hundred dollars!

This shows with what liberality money has been subscribed for these objects. The state legislature has contributed about four hundred thousand dollars towards these expenses. In the bridges of Columbia and Harrisburg, the state holds stock to the amount of one hundred and eighty thousand dollars. Many of these bridges produce six per cent. Those on the Susquehanna, notwithstanding their great cost, give handsome dividends, and are an evidence of active and constant movement through the interior of the state; since the Harrisburg bridge takes tolls to the amount of fifty dollars a day, and the Columbia about forty.

RIVERS AND CANALS.

Pennsylvania, when a province, passed many laws to enlarge, straighten, and deepen her rivers. Since her independence, she has never lost sight of those highly important objects. Two companies were incorporated in 1790 and 1791, for joining the waters of the Susquehanna with those of the Delaware, by means of the Swatara and Schuylkill. Very considerable progress was made in these works, both in Philadelphia and Dauphin counties, at an expense of 500,000 dollars. These two companies were consolidated into one, in 1811, under the title of the *Union Canal company*, and authorized to raise \$340,000 by lottery: About \$60,000 of this sum have been realized; and the managers are now getting the old works resurveyed, with a view to proceed in this great business. The law authorizes them to extend their canal or water communication to lake Erie. An annual sum of *twenty thousand* dollars, which is the yearly product of the lottery, will soon be at their disposal; for their debts are mostly paid off; and as the Schuylkill company have undertaken to perfect the navigation of that river, the Union Company will be able to give their undivided attention, with their whole funds, to the junction of the Tulpahoken and Swatara waters, by completing the canal (of which eight miles, with five locks, are already made) near Lebanon.

The state has appropriated \$50,000 in addition to former sums, in aid of the Schuylkill company; and the house of representatives showed, as I have already observed, a good disposition to contribute four hundred and eighty thousand more, by passing a law last session, to raise that sum in six years, by a tax of one per cent on auctions. This law unfortunately failed in the senate by a small majority. But I am rejoiced to be able to state that the managers have obtained, from private subscriptions, the totality of the sum wanted to complete the navigation of the Schuylkill, from its source to its mouth, and secure an up and down passage of three feet of water, at all seasons of the year. Three hundred thousand dollars were asked of the public, and subscribed in a

few days. The attention of Philadelphia is at length directed towards the inexhaustible sources of its future prosperity. Upon this subject I propose to say a few words by and by.

Laws the most liberal exist for the union of the waters of the Chesapeake with the Delaware, coupled with a grant of money, upon certain conditions. One canal has been completed many years on the western side of the Conewago falls; and another still more extensive, and sufficiently large for rafts and arcs, as well as boats, is now digging by an enterprising individual, Mr. Hopkins, of Lancaster. Laws likewise exist for improving the Brandywine and Lehigh, by lock navigation. This last river is now in hand; and it is intended this summer to put five hundred workmen upon it, so as to make a good passage for boats of ten tons this season, from Easton to the coal mines, fifty-five miles up the river, at Lausanne. The undertakers are chartered by a law of last session, and are bound to carry the improvements on that river to the foot of the great falls, where a turnpike road will intersect it from the Susquehanna at Wilkesbarre, only about fourteen miles from river to river. By a former law, \$30,000 were appropriated by the state for clearing the Lehigh; but the present company have relinquished this appropriation.

Besides the five hundred thousand dollars already spent on the canals adjacent to the Schuylkill, two hundred thousand are pledged for contracts, which will be finished in November next, and three hundred thousand have recently been subscribed. Already the following works on this river are nearly perfected:

*A canal round the great falls, and a dam across the channel of the river, by which the water is deepened up to the place where the locks are building, near the Flat Rock.

A *crib* dam about six hundred feet in length across the river, and thirteen or fourteen feet high, a little above the Flat Rock bridge, and from this dam, near the eastern shore of the river a canal of sufficient width and depth for a descending and ascending navigation, extending two miles down the stream, with communications, by means of four locks, with the river below.

Several dams, canals, and locks, in an upper section of the river in Schuylkill county, which are to overcome a fall of ninety-seven feet in six miles. Mr. Lewis Wernwag, who is the contractor for these works, has stipulated to complete, by the first of November next, an easy and safe lock navigation through that difficult section.

That gentleman has his plans in such forwardness, that he has engaged to deliver me at my wharf on the Schuylkill, one mile from the upper bridge, hickory wood of the first quality, at eight dollars a cord. That he is to do too in August, when the waters are usually very low. His intention is to put six or eight cords in a plank vessel, which will cost about ten dollars at the place of embarkation, eighty-five miles up the river, and on its arrival to have the vessel sold to the board merchants, at a small advance on the

* Address of the managers of the Schuylkill navigation company to the stockholders.

cost. This will be a beginning: In a year or two *wood* will be sent, in company with *coal*, at a much cheaper rate; for hickory can be had in that country cut and hauled for - - 1 50
 Two men per trip with a boat of ten cords, - - 1 50
 Tolls, - - - - - 2 00

5 00

Profit on boat and wood, - - - - - 1 50

\$ 6 50

or six dollars fifty cents, which is but little more than half the present price. *Coal* will in all probability, however, eventually supercede the use of *wood*, by its superior advantages for fuel in *every respect*—Cheapness, warmth, cleanliness, and security against fire.

The Legislature of Pennsylvania appointed in March 1817, commissioners to meet others from New Jersey, for the purpose of negotiating a removal of all the mill-dams on either side of the Delaware, which obstructed the free navigation of that river, and ten thousand dollars were voted, to clear away such other impediments as might delay the boats or rafts in their passage to Philadelphia.

SEMINARIES AND SCHOOLS.

Pennsylvania has done something for colleges and schools—she might have done more. I regret extremely that she has not been more liberal in the distribution of her riches, even among the minor academies; but it would have been particularly desirable to see her patronize, *with special love and care*, one central school—one seminary of genius, in which the promising youth of the State could find, *at little cost*, professors of all the higher branches of science, and procure that aid in perfecting their education, which should send them forth ‘the best patterns of their species, and give a dignity to that nature of which we all participate.’

Philadelphia has many of the elements of such a school within her ‘University;’ but many yet are wanting. It is the sovereign hand of the State alone that can collect and sustain them all in one focus; and give to the great whole, or to each constituent part, a full and efficient support. May we hope that the day is not distant, when she will make it her pride and her duty to accomplish this all important task. Meantime the following is an estimate of what the colonial, revolutionary and present governments of Pennsylvania have done, by gifts in money and land, for the existing seminaries.

The University of Pennsylvania has derived, principally from those sources, its present valuable possessions. It is due, however, to the Penn family to mention that they have contributed generously towards these funds.

The University now owns in real estate, ~~and~~ rents, bonds, and mortgages, a property estimated to be worth 237,000
 This includes the proceeds of the Perkasie Manor, which has lately been

sold for about sixty-two thousand dollars, and comprehends likewise three thousand dollars given by the present government for a botanical garden.

* Dickinson college was incorporated in September 1783, and in April 1786 received a State grant of 500 pounds, and 10,000 acres of land valued now at 3 dollars. 1333 33 30,000

In October 1788, a lot and buildings in the borough of Carlisle were granted to the college, which are valued, as I understand, at 2,000

By acts of the 27th March and 29th Sept. 1789, the college was entitled to one fifth of the nett proceeds of a lottery established by law; and by an act of the 20th of September, 1791, a sum of four thousand dollars was appropriated for the immediate relief of the college: this sum and the proceeds of the lottery, I put at 5,000

In April 1795, a further sum was granted to this college of 5,000

In March 1803, a loan was made to it of 6,000

And in February 1806, a further loan of free of interest for five years, 4,000

-----53,333 33

I refer the reader to what I have already said as to the good disposition of the senate last session to grant a large additional aid to this college.

In March 1787, 'Franklin College,' in the then borough of Lancaster, was established and endowed with ten thousand acres of land, which may be valued at three dollars, 30,000

And in February, 1788, this college received a grant of the public store-house and two lots of ground in that borough, which could not be worth less than 2,000

-----32,000
Jefferson Collegeⁿ as received, 5,000

Upwards of fifty laws exist, establishing and endowing academies, with one and two thousand dollars each. These grants, I shall place the item already mentioned; namely a practice,

which amounts to a pledge, of giving to each county for the use of an academy \$2,000 each; the number of counties being fifty, this sum is

100,000

The state appropriated by an act of 1786, sixty thousand acres of land for the sole and express purpose of endowing public schools in the different counties of the commonwealth, agreeably to the first section of the seventh article of the constitution, which is in these words: 'The legislature shall, as soon as conveniently may be, provide by law, for the establishment of schools throughout the state, in such manner that the poor may be taught *gratis*.'—And in order more completely to fulfil this constitutional injunction, a law was passed on the 4th April, 1809, entitled, 'An Act to provide for the education of the poor *gratis*.'

This law directs all assessors to return to the county commissioners of the several counties, the names of certain children whose parents are unable to pay for their education, for the purpose of being schooled at the expense of the respective counties. Under this law, the city and county of Philadelphia paid near thirty thousand dollars last year, for the education of about three thousand poor children: If then this district, which contains one eighth of the population of the state, and probably one fourth of the poor, paid \$30,000; the whole cost for this object throughout the commonwealth, must have been for a *single* YEAR,

120,000

N. B. By a law passed last session, this business is put upon a very superior footing in the district composed of the city and county of Philadelphia, by which many more poor children will be much better taught on the Lancasterian system, and at far less cost; and as a beginning, a *model* school house is now building, calculated to contain one thousand scholars, which it is expected will be opened next fall.

It appears by the foregoing statement, that the commonwealth has granted to colleges and academies four hundred and twenty-seven thousand three hundred and thirty-three dollars and thirty-three cents, while the public have borne an expense, annually, of one hundred and twenty thousand dollars for the education of the poor! If to this we add the vast sums paid by the rich for the schooling of their children, we can at least say that money has not been so sparingly bestowed upon this important object in Pennsylvania, as is so generally and so unjustly reported. I know that some other states have set aside, for public education, very large funds; and that New York, and *Connecticut especially*, have distinguished themselves by the most liberal appropriations. The latter state has devoted the whole sum received for her reserved lands in Ohio, amounting, I believe, to more than twelve hundred thousand dollars, to this hallowed purpose, with which she gives an excellent English school education to above twenty thousand children annually. This is a noble example for our own state to follow. She has a good disposition to do it, and will shortly, I trust, not only emulate, but rise superior to her neighbours in reverential affection for these sacred institutions.*

Before I proceed to offer a view of the finances of the state, let me be permitted to exhibit, under one head, the aggregate expenditure both by the public and incorporated companies, which has been made, according to my statement, on the roads, bridges, rivers and schools. It will stand thus:

By the legislature, as shown in a former page	-	2,398,435 00
By ditto, for colleges, schools, &c.	-	427,333 33
Deduct this much included in first item	80,000 00	
	<hr/>	347,333 33
By the counties for public schools, in full operation about five years at \$120,000 per annum	-	600,000 00
Turnpike roads by individuals (exclusive of state contributions)	-	5,000,000 00
Bridges by individuals, ditto	-	1,298,500 00
Cash expended by the two canal companies between the Susquehanna and Delaware previous to their union	500,000	
Old and new subscription to Schuylkill navigation, less state contribution	450,000	
Conewago falls; both sides	100,000	
Lehigh, for its completion to the great falls	150,000	
Lottery granted the Union Canal Company to raise the sum of	340,000	
	<hr/>	1,540,000 00
		<hr/>
		\$11,174,268 33

* I have just seen published an account of the first anniversary of the Philadelphia Sunday and Adult School Union. The report states the progress and present situation of 43 schools, with 556 teachers, and 5970 pupils, gratuitously instructed once a week in this city.

Amount brought forward, - - -	11,174,268 33
Loans to individuals and companies; some without interest and some at 3 per cent, to aid manufacturers, &c. - -	61,000 00
	<hr/> \$11,235,268 33

Making in round numbers *eleven millions* expended on objects of public utility in this state, principally within seven years!

Can it now be said, with justice, that Pennsylvania has done nothing? or rather may I not be allowed to beg the question, and ask whether any one state in the union has done more? It must be ignorance or slander to continue to reproach this commonwealth with inertness and languor. Her spirited exertions are deserving, on the contrary, of every praise; and there is the best founded hope that she will, by an extension of her public bounties and private contributions, continue to merit that praise. Pennsylvania stationary in her improvements! Let those who knew the interior of this state ten years ago, examine it now, and see whether she has been neglectful of her advancement? whether she has been left by her sister states at so disgraceful a distance? or whether she is not in solid and durable works equal to any of them? Her expenditures have averaged during seven years, by the foregoing statement:

For disbursements on the part of the commonwealth, the sum of \$477,000 per annum; on the part of individuals, the sum of \$1,115,000; making a yearly appropriation of one million five hundred and ninety-two thousand dollars; and if the war expenditure be added, which in all probability would have been the case had we been at peace,—a war expenditure, as I have stated, of \$919,000 we should have appropriated per annum, one million seven hundred thousand dollars, for seven years consecutively; which would have furnished as much money for general improvement throughout the state, as it would have been prudent or practicable to have expended, without interfering with the accustomed and settled prices of labour.

FINANCES:*

The funds of the state consist of

1. Lands *unsold*, the property of the state.
2. Principal, interest and fees due on lands sold.
3. Bank and other stock.
4. Loans to individuals and companies.
5. Debts due on balances settled.

ESTIMATE.

Lands unsold, estimated worth - - -	100,000
†Principal, interest and fees due on lands sold - -	1,600,000
	<hr/> 1,700,000

* See report of the committee of ways and means to the legislature last winter.

† Mr. Duane, Jun. estimates this debt, according to the number of tracts of land, (52,782) which remained to be paid for in the year 1809, at \$3,798,589. The estimate which I have taken from the committee of ways and means, is the very lowest: this item might with great safety be put at two millions of dollars.

Amount brought forward	-	-	-	1,700,000
Lots and lands reserved for public uses	-	-	-	100,000
Liens on lands in the seventeen townships of Luzerne county, under the act of 4th April, 1799				50,000
				<hr/>
				\$1,850,000

BANK AND OTHER STOCK.

Bank of Pennsylvania, first cost	1,500,000
Bank of Philadelphia	523,300
Farmers and Mechanics	85,400
Stock in roads, (paid to Dec. 1817)	404,065
Bridge and stock in navigation, ditto	285,000
	<hr/>
	2,797,563
Premium which could be now obtained on bank stock	770,000
	<hr/>
	3,568,563
Loans to individuals and companies	61,295
Debts due on balances settled in the auditor general's office	256,599
	<hr/>
	3,886,457
	<hr/>
	\$5,736,457

The revenue of the state may be estimated thus:*

1. Auction duties,	-	-	-	\$78,926 13
2. Dividends on bank and other stock,	-	-	-	200,571 00
3. Lands and fees on lands,	-	-	-	120,000 00
N. B. This item is carried out in the auditor's report \$62,661 70; which is the sum received by him in 1817; but as much larger payments are made some years, and as the debt due to the state on that head is at least two millions, I have taken the interest of that sum as a fair item of revenue; for if the whole should not be paid into the treasury annually, the deficiency will be carried to the credit of the commonwealth, as an increase of its capital.				
4. Tax on banks,	-	-	-	29,535 23
5. Tavern licenses, &c.	-	-	-	25,692 38
6. Miscellaneous	-	-	-	1,450
7. Tax on certain offices,	-	-	-	8,716 67
8. Court fines,	-	-	-	2,019 45
9. Fees of the office of the Secretary of the commonwealth,	-	-	-	968 45
				<hr/>
				\$467,779 31

*Auditor General's Report on the finances for 1817.

Amount brought forward, - - - 467,779 31

The expenses of government are:*

1. Legislative department,	-	\$83,969 10
2. Executive ditto,	- -	11,911 03
3. Judiciary ditto,	- -	52,747 10
4. Treasury ditto,	- -	5,448 49
5. Auditor General's department,	-	4,025 13
6. Secretary Land ditto,	- -	5,954 12
7. Surveyor General's ditto,	- -	5,955 78
8. Contingent expenses, general purposes	-	4,090 44
9. Conveying convicts,	- -	8,993 91
10. Miscellaneous expenses,	- -	46,308 23
11. Militia expenses,	- -	10,000 00

N. B. This item has heretofore been as high as \$34,240 61; but by a law passed the last session it will be reduced probably to less than I have put it at.

12. Pennsylvania claimants,	-	21,837 9
13. Pensions to old soldiers,	- -	18,696 46

279,936 88

\$187,842 43

By the foregoing statement, it appears that Pennsylvania possesses a clear estate of *five millions, seven hundred and thirty-six thousand four hundred and fifty-seven* dollars, and an excess of revenue over and above the generous supply of all her regular expenses, of more than *one hundred and eighty-seven thousand dollars!* She owes nothing, except the unpaid balance of the appropriations for internal improvement, which is in course of payment; she lays no taxes upon real estate, or upon any thing except the few trifles enumerated; and those are imposed on the Banks *in lieu of a Bonus*, and on the taverns, as a municipal regulation, and salutary restraint upon the abuse of unlicensed publicans. Can any country, any government, exhibit a more exhilarating picture! I think not. To me it is refreshing, it is cheering to contemplate it; and those who partake of such blessings, are, in my humble opinion, very much to be *envied*;—never to be *pitied*.

A considerable part of the funds of the state, as may be seen, are invested in bank stock;* a stock, which produced last year, more than two thirds of the totality of the expenses of government. The members of the legislature for several years past, seeing this sum so advantageously invested, and so certain (as they supposed) of its continuing to yield future dividends of eight and ten per cent. have pretty generally evinced a partiality for it. I think this partiality short-sighted. The stock, it is true, has

*I will mention here, that Pennsylvania, from her foundation, has ever maintained the highest credit in money matters. During the colonial government, she often issued paper money, and it ever passed at par: her credit is now unbounded: she has always been jealous of it, and will never run the least hazard of putting it in jeopardy.

done well heretofore; but our banks are numerous, and surrounded by rivals; some of them of gigantic stature, and they may soon be compelled to reduce these dividends to a less sum than six per cent. But as the revenue of the state amounts to more than its expenses, a certain amount of this bank stock might be sold at its present market price (forty per cent. advance for the major part) without lessening the current premium; and thus form a fund in aid of internal improvement, highly advantageous to the state.

An appropriation of that part of this stock thus sold, for the benefit of canals and rivers, or even roads, would be extremely serviceable: in the former more especially; where, if for years it should not bring a full interest, it would tend to unfetter the geographical difficulties of our rivers, and mingle the waters of one distant stream with those of another, to the vast profit of the countries by which they are washed; and to the durable, and even early, advantage of the funds thus laid out. The day is fast approaching, I fondly hope, when this doctrine will experimentally explain itself, and when we shall see our rulers, neither squeamish about placing their money in such stock, though *only prospectively* beneficial, nor even backward in *taxing*, if expedient, the people of the commonwealth, to procure *funds* for so profitable an investment.

INTERNAL REGULATIONS.

The political economy of Pennsylvania, is too vast a field for my plan. I shall do nothing more than mention a few prominent subjects, and that in a crude and imperfect manner.

One step of primary importance towards understanding the situation of the state, has already been taken. A general survey, under a late law, has been made of each county, and separate—*county* draughts, executed for the most part with great topographical elegance and accuracy, are to be seen now at the Surveyor General's office. A collection of these into one volume, if published with care, would form a complete, detailed and desirable atlas of Pennsylvania. When surveyors were appointed to execute this work, the Secretary of the commonwealth wrote to each one, a circular letter, under date May 19, 1817, requiring information in relation to such alterations or additions as had taken place in each county; likewise such geographical information generally with respect to the rivers, towns, and mountains, as the surveyor might be able to obtain.

These injunctions have been fulfilled with more or less ability, according to the talents of the respective surveyors. In relation to the counties of Luzerne, Susquehanna, Northampton and Lehigh, these requisitions have been satisfactorily obeyed. Mr. Isaac Chapman in a manuscript work, of which I have a copy, has noted with several statistical particulars, the towns and villages of that district, as well as the names and elevations of the mountains; character and description of the rivers and creeks, accompanied with hints of the future usefulness of these waters for internal navigation. This is a creditable report as far as it goes. But it is to

be regretted that the law did not enjoin upon the governor to select men for this duty, who were capable of adding to their surveys a more circumstantial report. What a fine opportunity offered, in forming this grand ichnographic view of the state, for obtaining a full and official return, not only of the face of the country, but of the quality of its soil and agriculture, the nature of its forests, plants, zoology, Indian antiquities, with historical notices of the expelled tribes—Mineralogy, mineral waters, natural curiosities, manufactures, state of society, German and English education, which counties increase by new comers, and which are neglected by emigrants, turnpike roads, bridges, banks, &c. with many other important particulars, and above all, a very careful notice of every navigable stream, with the minutest details of its capabilities for those grand and never to be forgotten purposes of inland water commerce. Such labours as these would have been of lasting use, and men abound in the state, with every capacity necessary for their accomplishment. Reports thus constructed, would have formed a body of geographic, statistic and scientific information, which superadded to the topographic surveys already executed, must have been a treasure to the political economist and statesman. But in the absence of these more elaborate reports, let us rejoice at the possession of those which the law of 1816-17 has procured us, and which are both creditable and advantageous to the commonwealth.

For the protection of morals, promotion of virtue, and the advancement of the well-being of each and all of its inhabitants, Pennsylvania has enacted laws both numerous and efficient. For the punishment of vice, without unnecessary cruelty, or an indecent exhibition of the culprit, her code is ample and salutary. She is now engaged in perfecting a system of penitentiary punishment, which she originated, and which she has had the satisfaction to see adopted in both hemispheres. By a law of the last session, sixty thousand dollars were voted for the construction of a prison at Pittsburg, entirely upon the plan of solitary confinement. Each prisoner will have a cell 8 feet by 11, with a fireplace, door, window, &c. and in front a small yard of the same dimensions. The building is to be in the form of a circular castellated fortress, with a penopticon or look-out tower in the middle, from which will diverge eight walls, so as to divide the grand centre into eight compartments, which are again subdivided into twenty-five cells, and so constructed as to prevent in case of rebellion, more than twenty-five convicts combining or uniting at one time for the purpose of escaping. It is to the ingenuity of Mr. Strickland, the architect, that we are indebted for the draught of this building; which was executed under the inspection, and by direction of Thomas Bradford, Jun. ~~Esq.~~ whose disinterested zeal and useful labours on this occasion, do him great honour. That gentleman, as well as all those who have observed the effects of solitude on the mind and on the behaviour of the convict, is intimately convinced, of its never failing effect in subduing, after

a short seclusion from the society of man, the most impetuous temper. What then may we expect after an absence of two or three years from that society! It is supposed that the worst dispositions will be tamed, and the basest habits corrected. The experiment is worth trying. At present, eighteen or twenty miscreants are crowded together, in one bed room, where, by a constant recurrence to the events of their past lives, the vilest are confirmed in their wickedness, and the less hardened become incorrigible. A separation is essential to the health of their bodies and their minds; for solitude, with proper superintendence, will give corporeal cleanliness; solitude with time, will frighten the criminal from sin! This law provides likewise for the sale of the Philadelphia Penitentiary, and gives authority to build another upon the foregoing principle.

Pennsylvania possesses several valuable arsenals, well stocked with munitions of war.* Its inspection laws yield to none, and have given to the flour, whisky, butter, beef, and other objects of exportation, a credit and character abroad, which, under legislative regulations, have become highly useful to the commerce of Philadelphia.

The philanthropy too of the government has been often exercised in revising the poor laws; contributing to hospitals, at home and elsewhere, and by granting relief to districts, assailed by incidental calamities. Thus it was she gave ten thousand dollars to Philadelphia after one of her yellow fevers; thus it was she sent fifteen thousand dollars to Savannah, to sooth the misfortunes of a general conflagration, and thus it is, as I have already mentioned, she has bestowed lately large donations on two of our own suffering counties, and on the charity hospital of New Orleans.

Good turnpike roads abound, as I have shown; but if the traveller has occasion to use the other roads of the state, he will find that the laws provide for their reparation, for the erection of mile stones, and direction posts, laws which are in general very creditably executed.

One agricultural society has been incorporated, and many others, if necessary, could easily obtain the privileges of a charter. Nor is the legislature indisposed to give more solid proofs of her bounty. At the end of the last session, a petition was presented by the agricultural society of Philadelphia, asking for a grant of money to purchase a pattern farm of one hundred acres. It came too late to be acted upon, but having been very favourably received, it was referred to the early attention of the next legislature. The following resolution and remarks from the committee, which I extract from their report, will show the general sentiment of the house.

† "The committee ~~is~~ of opinion, that the improvement in

* The state arsenal at Philadelphia is said to contain half a million of dollars worth of property.

† Journal of the house of Representatives for 1817-18, page 637.

formation of libraries in the interior, that cannot fail to dissipate prejudice, correct bad habits, and introduce new and approved systems, to the incalculable advantage of the immediate neighbourhood in which they are established, and of the nation at large. Indeed, those benefits have been already extensively felt. The cultivation of artificial grasses, scarcely known in Pennsylvania thirty years ago, aided by that powerful stimulus, gypsum, which Judge Peters first brought into notice here, has trebled the value of our farms, and added greatly to the general stock of wealth. If he who made two spears of grass grow, where only one grew before, is deserving of praise, how much do we owe to the man who has taught us to cover our fields with luxuriant clover, instead of the pestilential weeds which occupied them in our former fallows. The Hon. Judge Peters has done this, both by precept and by practice.

A petition from the Philosophical society, asking for a grant of a few thousand dollars, met with the most cordial reception in the senate, and nothing but the hurry of business, at the late period of its arrival, prevented its being acted upon. It was referred to the early and favourable notice of the next legislature.

Some of my constituents suppose, with great injustice, I think, that there is a disinclination in the western section of the state to serve the eastern. During the four months which I sat in the senate, I saw no signs of such a disposition—no bad temper upon the subject—nothing in the least hostile to Philadelphia. On the contrary, one transmontane gentleman, alike distinguished for his influence and intelligence, and who resides at the extreme west of the state, gave with much patience, his time and his talents in aid and support of the Lehigh bill; which is to all intent and purposes an Eastern bill; and by the success or defeat of which he could not have been affected in the most remote manner; since its object is to enable Messrs. White and Co. to open the navigation of that branch of the Delaware up to the coal mines, in order to supply Philadelphia with fossil-fuel; and the gentleman to whom I allude, represents the counties of Butler and Beaver, beyond the Alleghany mountains. No jealousy, no ill will was shown towards this city; nor was there the slightest difficulty to obtain any local laws, even for the exclusive advantage of our district, whenever its representatives were unanimously disposed to support such a law. If they differed among themselves, the gentlemen from the west and elsewhere, exercised their judgments, as they were bound to do, and sided with which ever of our own members they thought right.

The happiness I feel in testifying to the good disposition which so generally prevails, to labour assiduously for the perfection of the internal polity of the commonwealth, is mingled with one regret, and that is *an ancient*, howbeit, heretofore futile, to disturb the titles of our large land-holders. Unjust and impolitic projects, are frequently offered for the consideration of the legislature, that tend to weaken the security which the laws should in every event

vouchsafe to the land-holder. They protract the settlement of the state; they spread unfavourable reports of our polity and of our justice; they taint that reputation, for the protection of property, (even when not enacted into laws) which we should be anxious to preserve pure and sound, and ever sustain as the "sheet anchor" of the social compact.

New York, in this respect, is more fortunate. In that state no uneasiness ever exists respecting land titles; and she feels the benefit of it. Her laws upon that delicate subject, are immutable.

In Pennsylvania these projectors have never yet risen to a majority; and I heartily pray for the honour of the state that they never may;—never, I hope, shall we witness the prostration of that sacred barrier which protects property; a protection which it is the boast of every American constitution to extend to us, even to our uttermost farthing, whether it consists of money or of acres; whether it be invested in the marble walls of a palace, or in the wild abode of the buffalo and bear.

Here I shall leave the subject upon our internal improvements. If I have done something towards disproving the assertions so often and so injuriously made, that we are idle, indifferent, stationary; if I have exhibited a sketch creditable to the state, both for the good she has already done, and for her disposition and means to extend that good, I shall be satisfied. And that she will extend it from year to year I doubt not. May her rich and powerful hand continue to scatter her bounties with parental and impartial love, to the increasing benefit of her people, and lasting reputation of her government.

I now proceed to the second point I proposed to discuss, namely, "to show the superior situation of Philadelphia, geographically considered, for the attraction of the great and increasing trade of the countries bordering on the Susquehanna, the Lakes, and the Western rivers."

There are four routes by which Philadelphia *may* be united to the Susquehanna:

1. Between the great falls of the Lehigh and Wilkesbarre; a distance of only twelve miles.
2. Between Lausanne on the Lehigh and Berwick; a distance of thirty miles.
3. Between the head waters of the Schuylkill and Berwick, and
4. By the grand canal, already partly dug, through the counties of Lebanon and Dauphin.

The Schuylkill, it is now taken for granted, will be soon rendered navigable, even for steam boats. This is an important link in the great western and northern chains: ~~but~~ the *golden* link—the essential and high connecting part of ~~that~~ series of water route, which is to convey so much wealth to Philadelphia, lies between Reading and Middletown. If we make a good channel by means of the waters of the Tulpahocken, which empty into the Schuylkill, and those of the Swatara, which empty into the Susquehanna, and thus reach that great river, we are for ever safe, as a town.

When we are once able to attract to our wharves the produce of the Susquehanna, we command the trade of waters, which meander through more than half the state; of waters which interlock on the north with lakes and rivers running into Ontario and through the richest counties of the state of New York; waters which have their sources and navigable tributary streams, within fourteen miles of those that run west; and by whose junction we open to ourselves a vast and ever-increasing trade, not only with all the fair, full-grown and numerous daughters of the Mississippi, but with that "mother of rivers" herself, whose wide spread branches flow from every point of the compass, through hill and dale of inexhaustible riches; along mountains and deltas of every variety of soil; covering a country capable of sustaining two hundred millions of people! Between the Susquehanna and this vast territory only fourteen miles of land require to be cut, and if Philadelphia forms the link, which is to unite her to the Susquehanna, she may with ease and with cheapness, break down this fourteen mile barrier, and bring to the Delaware, by steam boats and other water carriages, a great part, if not all this inland trade; and she may do it too, without the dread of a rival in New York, Baltimore, or any other town. She will of necessity become the entrepot of this multifarious river-trade; her geographical position makes her such; she has nothing to do but to open the channel, and by the usual industry of commerce, appropriate to herself the countless treasures which will flow through it. A little more trouble, a little more cost, perfectly within her means, and Philadelphia can draw to her market likewise, the whole commerce of the great lakes above Erie, and to these northern, western, and north-western sources, she must look for her future prosperity. *If she does not make herself fully sensible of the necessity of opening these communications*, so easy, so certain, so advantageous, she will find herself, in a few years, deprived of her whole western trade;* indeed of every kind of internal traffic, except that of the narrow district between the Susquehanna and the Schuylkill; and thus limited, she must dwindle into a small town. But I have no such fears, no such anticipations. The share she has had in the expenditure of the eleven millions of dollars for public improvement; the alacrity with which she has lately filled up the subscription of half a million of dollars for the perfection of the Schuylkill navigation, and her accustomed liberality in aiding objects of usefulness, are so many guarantees for her perseverance in this all-important work.

In discussing this great topic, I make no apology when I repeat what I have already said; for it cannot be too often echoed and re-echoed in every quarter of the city. Other places around us are awake to its momentous consequences, and are vigilant, as I shall by and by show, in laying plans for the possession of part, or the whole of this great traffic. But it is a trade which geo-

* Owing to the new national road, toll free, and the New York canal.

graphically belongs to Philadelphia, and she has only to will it in order to have it. It is a trade with regions boundless in extent and in future riches, and calculated, if properly cherished, to raise our city to the very pinnacle of commercial grandeur;—to the very first rank among those which have distinguished themselves as conspicuous marts; it is calculated to stretch her limits even to the size of London, Canton, Calcutta; nay, beyond *that of any emporium on the GLOBE*. This is no enthusiastic flourish;—no unnatural effort of thought. It is a safe calculation, grounded upon the positive wants and presumable industry of the millions who are destined to occupy the fertile country, which must, in the event of a communication being opened, resort to Philadelphia, as to their nearest and most healthful and convenient market; a communication which will give to us advantages so stupendous, that, in contemplating them, nature seems to outwork fancy. I will endeavour to illustrate this assertion. Suppose the Schuylkill united to the Susquehanna; the only dividing point between the Juniata branch and western branch of that river and the Alleghany, will then be a distance of about fourteen miles. After passing this, at the two places pointed out in the accompanying maps, the whole western world is within our reach; and in order to show more distinctly the future destinies of Philadelphia, in the event of her extending these improvements to the Alleghany river, let us suppose the countries washed by the Ohio, Kentucky, Cumberland, Tennessee, Illinois, Wabash, Miami, Scioto, Muskingum, Mississippi from its junction with the Ohio to its source, Missouri 2800 miles up to the Great Falls,* with its branches the Osage, Kansas, Laplatte, Yellow Stone, &c. each from 5 to 800 miles long: let us suppose the countries, I say, through which these vast rivers pass, to be fully peopled, and possessed of only two out-lets; the one situate far to the south, and almost within the tropic, surrounded by an atmosphere constantly heated, without elasticity or healthfulness, and ungenial to the hardy constitutions of the north; the other standing in the temperate zone, with a route safe, salubrious, and equally short; could there be any hesitation in the choice? the one leading to the sickly mouths of the Mississippi, the other to the verdant and wholesome banks of the Delaware? the first to New-Orleans; the second to Philadelphia. Could there be any hesitation in the choice, I ask? no, not for a moment!—and for less than one million of dollars, or about as much as we pay, in municipal taxes every twenty months, the advantages derived from an intercourse with that country as she *now stands*, and *prospectively* as she *will stand*, become our own.

But the mind is lost in astonishment at the contemplation of the immensity of the scene which opens even beyond this; for when once arrived at the great falls of the Miss~~is~~ there is a portage of only eighteen miles over a level country, where again the navigation for large boats is practicable, and continues so, for more than two hundred miles, until the source of that branch of the Mis-

* See Appendix, No. 1.

souri, called Jefferson's river is attained. Here, and at the source of Madison river, the north and south forks of Lewis' river interlock. This last runs into the Columbia; so that the *totality of portage now existing between the Schuylkill at the Market Street Permanent Bridge, and the mouth of the River Columbia on the Pacific Ocean, is seventy-five miles!!!*—As thus:

From upper branch of Schuylkill to Berwick, on the Susquehanna,	- - - - -	23 miles.
From Sinnemahoning or Juniata, or both to the Alleghany,	- - - - -	14
Round the Great Falls of Missouri,	- - - - -	18
From Madison's river to south fork of Lewis' river, near the south pass of the Rocky mountains,	- - - - -	20
		75*

Is it soaring into the regions of fancy to suppose that at a future day, our teas and silks will arrive from the River Columbia, through the Missouri, Ohio, Alleghany, Susquehanna and Schuylkill to the Delaware, by safe and sound steam-boat conveyances? I think not. Nature has done her share; let art complete the work.

I have said that Philadelphia would be the *nearest* market for the countries washed by the Susquehanna. I will add that the route by the proposed canal will be beyond comparison the *safest*; for nature, after giving the greatest facilities to the navigation of this great river, from its sources to the town of Columbia, has, a few miles below that town, narrowed its stream; heaped rock upon rock, and made a descending voyage perilous in the extreme, and by this contraction of its waters and consequent rapidity of its current, precipitous banks, and iron bound shores, utterly precluded all hope of obtaining a secure ascending navigation. The report of the commissioners, which I shall give in a moment, confirm this fact; and I congratulate Philadelphia upon it; because it will give to her market the exclusive custom of a numerous people, inhabiting the upper banks of the Susquehanna, who can sell and purchase there as advantageously as at any other in America; so that the Middletown canal will obviate to them all the difficulties which nature has thrown in their way, at the mouth of that river.

Last year, commissioners were appointed by Pennsylvania, to examine the state of this river, in conjunction with commissioners appointed by Maryland. Mr. Benjamin R. Morgan, a gentleman well known to this district for his long public services and accurate acquaintance with every part of the state, was at the head of the Pennsylvania commission. At the last session, he and his colleagues reported the following facts in relation to the Susquehanna:

† 'In pursuance of ~~the~~ joint resolution passed the 25th of March, 1817, and of communications received from the commissioners appointed by the state of Maryland, we met six of their number at Havre-de-Grace, on the 30th day of June and the first

* See Appendix, No. 2.

† See Journal of senate for session of 1817-18—page 44.



day of July; but from the unusual height of the river, found it would be useless, if not impracticable, to ascend and examine its bed. Messrs. Harris, Hallenback and Wilson, were therefore appointed to engage at Columbia or elsewhere, a suitable river-boat, with at least six hands, properly equipped with ropes, poles and oars, and meet the other commissioners of the two states at Port Deposit, on the 11th of August, to proceed with them in her to Columbia or Harrisburg. The commissioners then adjourned to meet at that time and place.

'On the 14th of August, having been joined by general Winder, Messrs. Gale, Couden, Hollingsworth and Jarrett, we proceeded with the three former to the mouth of the Maryland canal, and the height of water continuing such as to prevent our further ascent in the bed of the river, entered the canal, and on the succeeding day, reached the upper end of it, making during our progress, such observations on the bed of the river, and collecting such information respecting it as our situation enabled us to do.'

The commissioners go on to state their difficulties in ascending the river, which were so considerable, that though they were in a well equipped boat, they did not reach Columbia until the 21st; taking seven days to go fifty miles; and they then proceed thus:

'The result of our examination of this part of the river, is an unanimous opinion that, any continuation of a canal navigation, from the head of that already existing in Maryland to Columbia, or the head of Turkey-head falls, *is impracticable*. In this opinion, we believe those of the Maryland commissioners who accompanied us, fully concur.

'2d. That although the ascending navigation, may, by means of towing paths, wing dams, chains, and *perhaps* in one or two places, short canals with locks, be considerably amended, it must *always* remain *tedious, difficult and dangerous*, and if *even free from toll*, more expensive and less eligible than the present land carriage from Baltimore, and even from Philadelphia.' This was the unanimous opinion of our commissioners.

Those gentlemen next give an account of their further progress up the river, until they reached Northumberland, where the waters of the two great branches meet, and they then proceed thus:

'From the very attentive view we have taken of this part of the river, (that is, from Columbia to Northumberland) and the intimate knowledge some of us possess, as well of the advantages as the obstructions and difficulties attendant on its navigation, we are *impressed with a thorough conviction that there is no part of the internal communications of this state, which can be more EFFECTUALLY improved at so small an expense*, probably not exceeding the losses that may occur in a single year, if the river is permitted to continue in its present imperfect state. Improvement; nor can we, impressed as we are, with the importance of the great and increasing population and trade of the northern and western branches of the Susquehanna, forbear recommending them to early

and effectual legislative attention, as they appear to us intimately connected with the objects, although not specifically embraced by the words of the resolution appointing us, and susceptible of great improvement at a comparatively small expense.'

'We recommend a division of the different parts of the river into the following sections, the improvement of each to be entrusted to separate agents and contractors, viz.

Section 1. Columbia to mouth of Juniata.

2. Mouth of Juniata to Northumberland.

3. Northumberland to Wilkesbarre.

4. Wilkesbarre to Tioga Point.

5. Northumberland to mouth of Anderson's creek in Clearfield county.'

The commissioners then give in detail the sums required for this important object. I dare say, the reader is prepared to see a column of some hundred thousands of dollars! Let him peruse the following official return made, as the commissioners say, 'with great care, and with the aid of persons well acquainted with the river, and consulted by them;' a return which I give here less in detail than they have done, by omitting, for the sake of brevity, the minute divisions into which they have separated each section.

The commissioners state that from the little Conewago, a few miles above Columbia, to Shamoken ripples, near Sunbury, the totality required is

		\$8,100
NORTH BRANCH.		
From Crook's ripples to Tioga point,	- - -	6,900
WEST BRANCH.		
From Scott's ripples to Anderson's creek,	: - -	3,780
Superintendence and contingencies,	- - -	1,500
		<hr/>
		\$20,280

Twenty thousand two hundred and eighty dollars for the improvement of the navigation of a river from Columbia upwards, which with its ramifications extends at least one thousand miles! and that too through a fine fertile country, wanting nothing to people it with robust farmers, but a good safe road to market!! That road the Philadelphians can and will open. Need I repeat that it lies between Middletown and Reading.

NORTH OR NORTH EAST BRANCH.

Mr. Chapman, to whose manuscript report, I have already alluded, speaks thus of the north east branch of the Susquehanna: * 'This river is navigable for boats [opposite Luzerne county, at least one hundred miles above Middletown] carrying about *twenty tons at all seasons of the year*, when not obstructed by ice, which obstructions occur generally about Christmas, and continue until the middle of March. The boatmen are getting more into the

* Manuscript report in the Surveyor General's Office.

use of sails, and I have seen during the last season in a number of instances, boats loaded with *twenty* tons, ascend the Wyoming falls, by the force of wind only.' About eight miles below where this branch first enters Pennsylvania, there is a village called Great Bend, from whence a turnpike road is completed to Coshecton on the Delaware river; another turnpike from Milford on the Delaware to Owego, on the Susquehanna, in the state of New York, is in hand, and for want of a good and certain water route to Philadelphia down the Susquehanna, vast quantities of lumber are carted across these turnpikes at a heavy land expense, and floated to our market down the Delaware. These objects would come at half price, if the waters of these two great rivers were united by a canal, and in such abundance, as soon to become an article of export to the West Indies or elsewhere.

A few miles on this side of the line, which divides New York from Pennsylvania, the Tyoga river comes into the Susquehanna from the north west, and just within the line of New York and on the Tyoga, stands a small village called Elmira or Newtown.—From this place to Seneca Lake, the legislature had a survey made last summer by two able engineers, Mr. Robert Brooke, of Philadelphia, and Mr. Charles Treziyulny, of Centre county.—These two gentlemen fulfilled their task satisfactorily, and laid before the assembly a plan and profile of the survey and levels, executed in a style of great elegance, and accompanied by a report, from which, I make the following extracts:

* 'The subscribers, commissioners appointed by his excellency Simon Snyder, in pursuance of an act of the general assembly of the said commonwealth, proceeded the 22d of March, 1817, to explore the route of the intended canal for uniting the waters of the Seneca lake and Tyoga river, in the state of New York, report:

'That we believe the making of the canal practicable, there being no other difficulty to encounter, but the great descent of the ground, and the consequent number of locks which will be required upon it. Although the descent from the summit level to the Seneca lake be great, it is pretty regular, and the ground will be easily dug, there being no rocky or otherwise difficult ground to pass.

'If this canal be made, it will, with the proposed canal from Canandaigua outlet to Sodus' bay, *complete a chain of boat navigation from lake Ontario to the Susquehanna*;† thus uniting the great northern and southern waters. The immediate benefits which will result to the people of Pennsylvania, will be the plaster and salt trade of New York, by which the interior of the state will be supplied with those necessary articles of subsistence and of agriculture. In return the citizens of Pennsylvania, will find a market for their coal and iron in the lake country of the state of New-York.'

*See Report in the Journal of the House of Representatives, page 394.

†And by consequence, if the Middletown canal be finished, from the Susquehanna to Philadelphia.

The length of this canal will be nineteen miles and one hundred and thirty-five poles, and will cost by the computation of these gentlemen, \$583,300. All necessary materials for building the locks, &c. can be obtained in great abundance, and of an excellent quality, in the hills adjacent to the route of the canal, in all parts, from the middle ground northward to the Seneca lake.

Having shown the facilities which the north east branch offers for conveying from the very interior of New York into which it extends, as well as from the Genesee lakes and lake Ontario, every kind of produce which can be spared, I beg leave to draw the attention of the reader to the advantage Philadelphia possesses over New York city, both in distance and mode of conveyance: and I acknowledge myself indebted for these items to a pamphlet lately published, and full of useful information upon the internal improvement of this state, ascribed to Mr. Samuel Mifflin, whose activity and zeal in the promotion of these great concerns, merit the thanks of the community.

FIRST ROUTE TO NEW YORK.

Geneva to Albany, land,	-	-	-	192 miles.
Albany, by water to New York,	-	-	-	165
				<hr/> 357

On this route there is a land carriage of nearly two hundred miles.

SECOND ROUTE TO NEW YORK.

Geneva to Oneida lake, water,	-	-	-	90
Oneida lake to the Mohawk falls, water,	-	-	-	109
Mohawk falls to Schenectady, water,	-	-	-	56
Schenectady to Albany, land,	-	-	-	15
Albany to New York, water,	-	-	-	165
				<hr/> 435

ROUTE TO PHILADELPHIA BY MIDDLETOWN CANAL.

From Geneva to Newtown down the canal in agitation between Elmira and Seneca lake,	-	-	-	45 miles.
From Newtown or Elmira to Tioga Point,	-	-	-	18
From Tioga Point to Berwick,	-	-	-	121
Berwick to Middletown,	-	-	-	75
Middletown to Schuylkill at Reading,	-	-	-	65
Reading to Philadelphia,	-	-	-	55
				<hr/> 379

From Geneva to New York is then by a bad navigation and fifteen miles of land, four hundred and thirty-five miles; whereas the distance *all the way*, by an *excellent water route*, will be from Geneva to Philadelphia only three hundred and seventy-nine miles: difference in favour of Philadelphia, fifty-six miles.

I say nothing of Baltimore, because she cannot interfere in the smallest way with us, if the Middletown and Seneca lake canals are finished, together with a short cut from the west branch of the Susquehanna, (which I shall notice presently in speaking of that branch) over to the Alleghany river.

It is well known that the people inhabiting the western counties of New York, look to Philadelphia, as to their *geographical* market. *Mr. Church has written and laboured hard with the influential men of this state, to get the waters which do, or can be made to lead to our city, cleared of their obstructions. The time is now come, when this great business is about to be accomplished.

The following letters, upon this subject, do honour to the parties, particularly to the liberality of governor Clinton, who acknowledges that Pennsylvania is the route through which the produce of the western counties of New York should pass.

Copy of a letter from the Governor of Pennsylvania to the Governor of New York.

1695738

HARRISBURG, September 3, 1817.

SIR,

For obvious reasons, I take the liberty to transmit to your excellency, a copy of an act passed by the legislature of Pennsylvania at their last session, under the authority of which, I have appointed Robert Brooke and Charles Trizeyulny, Esqrs. commissioners. Those gentlemen have fixed on the 29th of the present month, to meet at the head of the Seneca lake, for the purpose of performing the duties contemplated by the law.

I anticipate no objection to a co-operation on the part of this state, to carry into effect some portion of the vast internal improvements, contemplated by the enterprising and liberal legislature of the state over which you preside. Should, however, any present themselves to your mind, or should your excellency have any suggestions to make on the subject, I shall feel gratified by an early answer to this letter.

I have the honour to be,

With high consideration and respect,

Your obedient servant,

SIMON SNYDER.

His Excellency DE WITT CLINTON, Esq.

Governor of the State of New York.

GOVERNOR CLINTON'S ANSWER.

ALBANY, 20th September, 1817.

SIR,

My absence from this place, has prevented an earlier reply to your excellency's communication of the 2d instant.

The measures adopted by Pennsylvania to connect the waters of the Seneca lake and Tioga river, exhibit an intelligent, enterprising

* A large landholder near Seneca lake.

and patriotic spirit; and the benefits which will arise from the execution of the plan, will be experienced in the creation of an extensive inland trade, and in the consequent encouragement of agriculture, commerce and manufactures. The obvious tendency of this measure is to facilitate the transportation of commodities from this to neighbouring states. From a full persuasion that the prosperity of our country will be best advanced by multiplying the markets for our productions, and by an intimate and beneficial connexion between the different members of the confederacy, I consider it a sacred duty to overlook local considerations, and to promote, to the utmost of my power, this, and every other plan, which may be subservient to these important objects. And I cherish with confidence the opinion, that the state over which you preside will, under the influence of an enlightened public spirit, co-operate with this state in promoting our contemplated navigable communication between the northern and western lakes and the Atlantic ocean.

Under this impression, I now transmit to your excellency the official report of the canal commissioners, and the acts of the legislature of this state on this subject.

I have the honor to be,

Very respectfully,

Your most obedient servant,

DE WITT CLINTON.

Governor SNYDER.

Both these letters allude to the efforts making by the state of New York, to possess itself of the northern and western trade.—Her efforts, and those of Maryland, ought to stimulate Pennsylvania, and particularly Philadelphia, to take immediate measures for the security in perpetuity of those advantages which nature has given to them; and in adverting to these rival attempts, I cannot discuss the subject better than by quoting the language and sentiments of the committee on roads and inland navigation,* of last session.

‘ 1. Pennsylvania, (possessed of rivers, the impediments of which, as experience proves, may be passed by short canals and locks) requires an artificial channel of about sixty or sixty-five miles in length; whereas New York requires an artificial channel three hundred and twenty-seven miles in length.

‘ 2. In Pennsylvania the same boat will answer for the whole route, whenever the rivers are united by canals and locks, or canals and inclined planes, and consequently no unloading or detention will take place; whereas, on the route from New York to the Ohio river, the boat which navigates the Hudson river, will not suit the canal; and ~~the~~ ^a boat which navigates the canal will not be adapted to lake Erie; and a fourth boat will be necessary for the

* Journal, House of Representatives, 1817-18—page 419.

Alleghany river, and the canal which connects that river with the lake.

' 3. The boats on the Pennsylvania route, may throughout the whole extent, if they are not driven by machinery, be propelled by poling or rowing: and thus a more certain calculation may be made as to time.

' 4. On the Pennsylvania route, the distance from the commercial city, (Philadelphia) on the Atlantic waters, to the banks of the Ohio, will be but little more than four hundred miles; whereas on the New York route, it will be about seven hundred and fifty miles. Philadelphia will consequently afford a more speedy and less precarious market, and a quicker communication by mail.

' 5. The frequent unlading and warehousing on the New York route, will give opportunities of pilfering; an evil considered of great magnitude in Europe, and which the change of manners which is taking place in this country, will render of great magnitude here.

' 6. Nearly the whole of the Pennsylvania route will be through the richest parts of the country, along the banks of rivers already improved and peopled, affording conveniencies and comforts, which many parts of the New York route cannot for a long period possess.

' 7. Pasture lasts longer in Pennsylvania than in New York, and there will not be as long an interruption by ice; (the difference in the course of the year being computed at two months in favor of Pennsylvania) which in connexion with the great length of the New York route, will render a communication difficult in the spring and autumn; the most natural seasons for communication.'

So much for our advantages over New York. Let us now consider how we stand with Baltimore,—what is our present situation? No water communication with the Susquehanna, and a heavy toll to pay upon a road three hundred miles long! It does not require the gift of prophecy to foretell, that if we remain idle under such circumstances, Baltimore will acquire very soon a superiority over us; nay, I will boldly aver, that the trade from the Ohio, *through its usual overland route*, will wholly leave Philadelphia in a few years; and,

1. Because Baltimore is nearer to that river by ninety miles, over the new national road, *toll free*, from Wheeling to Cumberland, and will of course supply the western states with all light Atlantic luxuries, much cheaper than we can; and,

2. Because the steam boats on the Mississippi and its tributary streams, and which are already numerous, and susceptible of any increase, will transport all articles of bulk from New Orleans at a less rate than can be done by us.

To counteract these threatened evils, we must furnish a *cheaper* water intercourse, by some of the routes hinted at; and knowing as we do the natural impediments which the lower part of the Susquehanna offers to a communication with Baltimore, we can with certainty monopolize the whole of the commerce of the

western waters. But we must make our way to the Susquehanna, and thence to the Alleghany first; and we must go about it soon too; for without the accomplishment of this object, is it to be conceived that Philadelphia can long continue to offer attractions superior to Baltimore, particularly when every foot of the way, as the road now stands, must be paid for on turnpikes to our city, while the trader goes *free* to the other? while he travels from Wheeling three hundred and forty miles to *this*, and only two hundred and seventy to *that*? We have a transporting company, it is true; but this does not exclude Baltimore from having one likewise; and all the other advantages which we now enjoy, of better assortment, larger capital, &c. will soon be acquired by that city; her locality will then triumph over all our *land* efforts,—and we shall diminish in trade and size daily; perhaps even by a removal of western merchants themselves, to swell the capital of our rival city: a *rival*, however, only so long as we neglect to open a water intercourse.

If this approximation of Baltimore to the Ohio, by the new national road, *toll free*, does not arouse us, I invite the Philadelphians to re-peruse the following advertisements, copied from a Buffalo paper of May, 12th.

WESTERN LINE.

Sloop Sappho, captain I. Gillaspie, and five other vessels, will sail from New York and Albany every Wednesday and Saturday through the season.

The subscribers, who are connected with some of the most respectable establishments in the interior of the state, on Lakes Ontario and Erie, and at Orleans, are enabled to forward to any point, west of Albany, and to Montreal, at prices much below the ordinary rates. *In particular they guarantee, that to Detroit and Sandusky, their charges shall in no case exceed four dollars and fifty cents, and to Pittsburg, six dollars per hundred weight.*

SMYTH and WENDELL, } of Albany.
SATTERLEES and SELDEN, }

And the other advertisement is by Charles Smyth, who “guarantees to his customers, that the cost of transporting packages of ordinary bulk from *New York to Detroit*, shall in no case exceed four dollars and fifty cents, per hundred weight, and that sum shall include every charge.

From Philadelphia to Pittsburg, the common freight varies from six dollars fifty cents, to seven fifty: seldom below the latter; but if the water communication is opened, it will fall by that route to four or less.

In order to explain more in detail the means by which we can counteract the measures taking by New York and Baltimore, to deprive us of the western trade, I beg the reader to follow me on the annexed maps. Part of the distances are taken from Mr.

Duane's pamphlet, and are said by him to be correct; the others I have gathered from different sources; they can in general be relied upon, particularly the essential ones at the canal-cuts.

See Plate No. 1.

	Miles.
From Schuylkill tide-water to Tulpehocken creek, the distance is	61
Canal partly opened from Tulpehocken to Quitapahilla (eight miles and five locks are made)	34
Down Quitapahilla to Swatara	15
Down Swatara to Susquehanna	23
From the mouth of the Swatara, (which is at Middletown,) up the Susquehanna, to Sunbury	65
Up West Branch (see Plate No. 3.) to mouth of Sinnemahoning	106
Up Sinnemahoning to its forks	15
Up West Branch of Sinnemahoning	24
Portage to Little Toby's creek	14
Down Little Toby's creek to Main Branch	10
Down Main Branch of Toby's creek to the Alleghany	70
Down Alleghany to Pittsburg	80
	<hr/> 517 <hr/>

The distances from New York to Pittsburg, are

From Geneva to New York, (169 miles by land)	357
Geneva to Buffaloe	120
From Buffaloe to Erie or Presqu'ile	100
Portage $15\frac{1}{2}$ miles to French Creek	151
Down French Creek to Alleghany	70
Down Alleghany to Pittsburg	125
	<hr/> 787 $\frac{1}{2}$ <hr/>

Land travelling by New York route as above, including portage at Erie, to be converted into water	184 $\frac{1}{2}$
Land by Philadelphia route, to be converted into water	50

Difference in favour of Philadelphia 134 $\frac{1}{2}$

Whole distance from New York	787 $\frac{1}{2}$
Ditto from Philadelphia	517

Difference in favour of Philadelphia 270 $\frac{1}{2}$

By this statement New York cannot ~~be~~ us.—New York has another route through Lake Chatough, &c into the Alleghany; but it is several miles longer, and worse water.

There is a second route from Philadelphia to the western waters by the Juniata, of which I have not given a map, be-

cause it presents obstacles more formidable than that from the west branch of the Sinnemahoning, both as to water and land; and yet it was preferred in 1791 by the society* "for promoting the improvement of roads and inland navigation." This route is up the Juniata to the head waters of Poplar run, and from thence across the Alleghany mountains to the Connewaugh, which empties into the Alleghany river, about thirty miles above Pittsburg. Here the portage is fourteen miles, and the land much higher; the navigation too is uncertain, being more shallow than that on the western branch of the Susquehanna. The Racetown branch of Juniata, which is extremely tortuous, is obstructed by mill dams; yet I have seen large arcs, four miles above Bedford, prepared to receive a load of wheat, hazard the adventurous passage of these dams, wind round the serpentine folds of this river, and encounter the dangers below Columbia, in search of a market. How soon would these mill dams be levelled, and how much would the number of these arcs increase, if a safe navigation was opened for them through the Middletown canal, to Philadelphia?

This Juniata passage to the Alleghany is not now thought the best. Mr. Charles Treziyulny, who surveyed the route between the Tioga and Seneca Lake, wrote thus upon this subject, to the chairman of the committee of roads and inland navigation:

DEAR SIR,

Harrisburg, March 9, 1818.

In answer to your inquiries, I can say, that I have no doubt of the practicability of connecting the head waters of the branches of the Susquehanna and those of the Alleghany. I have frequently been, at various seasons of the year, upon the ridges which separate the waters of the Juniata from that of the Connewaugh branch of the Alleghany, and have always been of opinion that there is a sufficiency of water, to make a reservoir upon the summit level, adequate to the feeding of a canal to connect the eastern and western waters. The highest part of the ridges is well supplied with natural springs and rivulets. But it appears to me further, that a far easier connexion could be effected, *and at much less expense*, with the west branch of the Susquehanna, Anderson's and Sandylick Creeks.†

The last mentioned creeks being in all seasons of the year plentifully supplied with water, and at the points of separation, there are numbers of other streams in the vicinity which could be connected, for the purpose of feeding an elevated reservoir.

The levelling and surveying of such parts will be the only means of ascertaining the true state with certainty.

I am respectfully, Sir,

Your humble servant,

CHARLES TREZIYULNY.

WILLIAM LEHMAN, Esq. Chairman of the
Committee of Roads and Inland Navigation.

* See Mr. Duane's pamphlet, page 55.

† See Plate 3,—head waters of Sinnemahoning.

By this letter, Mr. Treziulny thinks, that the route to the north of the Juniata, and which may be seen in No. 3. of the Maps, is not only easier of execution, better supplied with streams for a reservoir, but can be executed cheaper, than that from the head waters of the Juniata. If that be the case, it shows how very little the cost will be, since the estimate of the expenses from the Juniata to the canoe place on the Connemaugh is only 108,000 dollars! according to the society for internal improvement of 1791.*

The route to Lake Erie (see Map No. 3.) is by two short cuts; the one of twenty-three miles, and the other beyond Lake Chatouhque of nine miles and a half. The distance from Philadelphia to Lake Erie, by this route, will be as follows:

	Miles.
From Philadelphia to the forks of Sinnemahoning	319
Up North Branch of Sinnemahoning	19
Portage to river Alleghany	23
Down Alleghany to mouth of Connewango	76
Up Connewango to Chatoughque Lake	28
Across the Lake to its head	17
Portage from Chatoughque to Lake Erie	9½
	<hr/> 491½ <hr/>

There is another route to Lake Erie, with only twenty-nine miles cut, by the west branch of the Sinnemahoning, and altogether through our own state; but it is upwards of seventy miles further by water. It is satisfactory for us to know that, by these short cuts, perfectly practicable, and some small improvements in the navigation of the head-waters of the interlocking rivers, we can get to the great inland seas of the north-west with expedition and safety; and it is moreover of great importance to us, as furnishing at a future day, when the western states shall become populous, three or four shorter water routes, through these states to the Ohio and Mississippi, either by the Sandusky and Scioto, or the Little Miami, and the Wabash and Illinois rivers; all which waters have their sources within a few miles of each other.

I will now call the attention of the reader to Map, No. 2, on which is marked the route surveyed for a canal last summer, by order of government, as already mentioned. This route is about 21 miles long, and can be converted into a canal at an expense of about five hundred thousand dollars, or into a rail-road at a much cheaper rate. This last may be found most feasible, on account of the long winters of that northern country, during which the canal would be useless; whereas a rail-road, which one horse may


* See Mr. Duane's pamphlet, page 55.

draw four tons, would be in permanent use. This road will unite the Seneca lake, whose waters flow into the Ontario, with the Tioga, whose waters flow into the Susquehanna, and all the raw materials or manufactures of the Genessee country, and finest counties of New York state, together with a portion of the Ontario trade, would look to the Philadelphia market for a vent. Pine creek, a large branch of the Susquehanna, and most valuable for the goodness of its navigation and constant supply of water, even in the driest seasons, interlocking with the Chenesee river, which disembogues into lake Ontario, furnishes another route to those great waters. And there is a curious circumstance (see Map No. 2) sometimes occurs at the north-east head of Pine Creek, whose source is in a morass, the same in which the south branch of the Tioga rises. It happens in wet weather, that by means of this morass, canoes pass from one source to the other; thus insulating all the country between these head waters, and the forks of the Susquehanna at Sunbury. It will be seen likewise in Map No. 2, that there is only a portage of 19 miles from Harmony on the Susquehanna, to Stock-Port on the Delaware, down which river a great deal of lumber is floated, even from the Susquehanna, (being carted over) because the markets are better, and risk less by this route.

The Susquehanna penetrates into the State of New-York as far as lake Otsego, within ten miles of the Mohawk,* and is then sixty miles nearer lake Ontario than the tide-water of the Hudson; another branch of this river may be ascended as far as Bath, in Steuben county, New-York; from whence the portage to Crooked lake is not ten miles, and from this lake to Ontario there is an uninterrupted water communication.

The dividing ground to the west, between the Alleghany river and Susquehanna, is not so high as has been overcome even in America. Mr. Treziyulny's letter upon the union of the waters in question, is perfectly satisfactory; but even if the hills were higher, and without water to form reservoirs, Mr. Fulton was of opinion that they might be passed. His words are these:

"Should doubts arise on this part of the plan, I beg leave to assure you, that there is no difficulty in carrying canals over our highest mountains, and even where nature has denied us water. For water is always to be found in the valleys, and the canal can be constructed to the foot of the mountain, carrying the water to that situation. Should there be no water on the mountain or its sides, there will be wood or coals; either or both of which can be brought cheap to the works, by means of the canal. Then with steam engines, the upper ponds of the canals† can be filled from the lower levels, and with the engines the boats can, on inclined

 Duane's pamphlet, page 54.

† As may be seen every day, at the Fair-Mount works on the Schuylkill, where a single engine throws up more than one million gallons of water in 20 hours, for the supply of the city, a height of more than 60 feet.

planes, be drawn from the lower to the upper canal. For this mode of operating, it is necessary to have small boats of six tons each. As the steam engines are to draw up and let down the boats on inclined planes, no water is drawn for the upper level of the canal, as when locks are used; consequently when the upper ponds have been filled, it is only necessary that the engine should supply leakage and evaporation. There is another mode of supplying the leakage and evaporation of the higher levels: on the tops and sides of mountains, there are hollows or ravines, which can be banked at the lower extremity, thus forming a reservoir to catch the rain or melted snow. From such reservoirs the ponds of canals can be replenished in the dry months of summer. This mode of reserving water is in practice in England for canals, and in Spain for irrigation. In this manner I will suppose it necessary to pass a mountain 800 feet high; then four inclined planes of 200 feet rise, would gain the summit, and four would descend on the other side. Total, eight inclined planes and eight steam engines. Each steam engine of 12 horse power, would cost about ten thousand dollars: in all 80,000. Each would burn about 12 bushels of coal in 12 hours, or 96 bushels for the eight engines for one day's work.

The coals in such situations may be estimated at 12 cents a bushel; or - - - - - \$ 11 52

At each engine and inclined plane, there must be five men—total, forty men at one dollar each, - - - 40

Total, \$ 51 52

“ For this sum they could pass five hundred tons in one day over the eight inclined planes, which for each ton, is only ten cents. Suppose the mountain to be twenty miles wide, boating for each ton would cost twenty cents; making a total of thirty cents per ton.”

This great man estimated the cost of transportation, with an average of rough country, at six dollars per ton for 1200 miles by *canals*; what then can it be brought for by *river navigation, aided incidentally only by artificial cuts*? Perhaps at less than half the price; so that we might have, with the inland openings which the physical construction of Pennsylvania invites us to make, a ton of goods brought from the *Mandan villages,* sixteen hundred miles up the Missouri to the Philadelphia market*, at less cost than we now send the like weight by land to Pittsburg! that is to say, three thousand two hundred and seventeen miles by water, cheaper than three hundred by land! But this Missouri commerce, although certain, is yet remote; let us however consider what are the immediate advantages to be derived by an intercourse with the Susquehanna and Alleghany.

* Sixteen hundred miles up the Missouri—seven hundred up the Ohio to Pittsburg—five hundred and seventeen from Pittsburg to Philadelphia by water. Total, three thousand two hundred and seventeen miles from Philadelphia.

1st. There will be thirty steam-boats this year on the Mississippi and its tributary streams. *Five hundred and ninety-four flat-bottomed boats, and three hundred barges arrived at New-Orleans from the upper country, in the year ending October 1, 1816; fifteen hundred flat-bottomed boats and five hundred barges, ditto, in the year to October 1, 1817. A large proportion of this came from the waters which would be united with the Susquehanna, and of course would come to the Philadelphia market.

2d. More than 2000 rafts, from 2 to 300 arcs, and innumerable boats, carrying 200 barrels of flour, or 6 or 700 bushels of wheat each, descend the Susquehanna annually, in spite of its present impediments and dread of the horrible passages below Columbia. If the upper impediments were removed, as I have shown they could be, with twenty thousand dollars,† and a good route made to Philadelphia, the totality of this trade would come to us, and finding here a good market, would increase beyond all measure.

3d. Some years ago, I engaged a man at Sheridan's tavern, at the then upper ferry, to keep an account of all the articles brought down the Schuylkill, in the eleven boats, which plied when the waters were high, between Reading and Philadelphia.

He fulfilled this task satisfactorily, and I published the particulars at the time. The amount of these articles which consisted of flour, whiskey, iron, hats, windsor-chairs, and various etceteras, was between five and six hundred thousand dollars, calculated at the market prices. What then will be that amount, when the coal is added? when the trade of the west is turned into this river? when at *Flat Rock alone*,‡ the one hundred and forty overshot mill-wheels are at work grinding the wheat from that inexhaustible granary, the Susquehanna? This work, without a single auxiliary, would double the exports of Philadelphia. But if we add to these grist mills, the saw mills, for sawing stone and wood, grinding of plaster of paris; cotton manufactories, woollen ditto, rolling and slitting mills, for all kinds of iron, copper, brass and other metallic work; factories for spinning flax and hemp, nail works, trip hammers for scythes, saw-mill saws, rotatory saws, for veneer-boards, mills for turning and boring cannon; works for making anchors for ships of war and others; works for manufacturing muskets, swords with turning lathes, grind stones, &c. mills to rasp up and manufacture dye-woods, for boring pump logs and other purposes; works for forge hammers, and various other purposes; oil mills, and cleaning flax,§ &c.—All which, can be easily accommodated by the vast water-power at the disposal of the company, along a distance of eighty-five miles, with a fall of four hundred and eighty feet, and may employ a capital of one hundred millions of dollars, and one hundred thousand workmen. To all which, we may fur-

* Letter from New-Orleans published in the Boston Palladium.

† See Commissioners report to the Legislature.

‡ See report of Schuylkill Navigation Company.

§ Many of which are contemplated to be erected upon a much smaller space near Boston.

ther add, besides the coal and other articles, already enumerated, and ship timber of every kind, the following produce:—Oats, barley, beans, grain and pulse of all kinds; cyder, apples, and fruits of all kinds; salt, salted beef, pork and other meats; hides, tallow, beeswax; pot and pearl ashes; tanners' bark, and ground bark, plaster of Paris; hemp and flax; marble, lime, poultry, alive and dead, ginseng, cheese, butter, lard, staves, &c. &c.

And all this can be had at the following cost, *even if we have to cut a canal the whole distance from Reading to Middletown:*

Mr. Weston's estimate of a canal from the Schuylkill at Reading to Middletown, on the Susquehanna, even as I have said, if the whole seventy miles should have to be dug,	\$1,121,333 33
Estimate across the portage from west branch of Susquehanna to Alleghany,	300,000
From Chatoughque lake to lake Erie,	60,000
From Tioga to lake Seneca,	560,000
Clearing the Susquehanna,	20,000
Completing Schuylkill navigation,	500,000
	<hr/>
	\$2,561,333 33

Making only two millions five hundred thousand dollars in round numbers, (of which five hundred thousand are already provided)* to open all these vast sources of inland commerce!

Now suppose that Philadelphia alone—single-handed, has to encounter this expense, I think I can make it appear that she has at hazard a stake, sufficiently large, to induce her to undertake it; that she has over and over again, the means to accomplish it; and that it is of paramount and vital importance to her existence as a great city, that she should set about it, without loss of time; that by doing so,† she will be making, not only a profitable investment to the stockholders of the funds wanted, by procuring for them the dividends authorized by law; which are fifteen and twenty-five per cent. but that she will quintuple the size of her town, and be able to sustain the present value of every house in it. Her means, her wealth and property at stake, I propose to set forth, somewhat in detail; and for that purpose, I ask the attention of the reader to the following items; all which may be considered as minutely accurate, except the last, which is conjectural.

Estimated value of property within the city of Philadelphia, liable to taxation, as returned by the assessors for the year 1817—	
Millions of dollars,	30,585,947
Add ten per cent. for commissions for collecting and allowance,	3,058,594
	<hr/>
	\$33,644,541

* See subscription to Schuylkill navigation.

† See the laws, incorporating Schuylkill Navigation and Union Canal Companies.

City Tax, 50 cts. per \$100	168,222 70	
From this deduct abatement, supposed to have been made by the city com- missioners,	3,410 38	164,812 32
County Tax 35 cts. per \$100 on pro- perty valued at \$55,408,579 00*		193,965 01
Poor tax,		156,461 35
		<u>\$515,238 68</u>

Independent of the above taxes, the several townships in the county are assessed for their local taxes, and those that are incorporated, for their separate corporate taxes, which will probably make the whole sum paid into the city and county treasuries, equal to *six hundred thousand dollars*.

Now by the following estimate, the *coal* alone brought down the Schuylkill, will annually save to the city and county, nearly the whole of this enormous tax, as thus:

The city and county are supposed to consume annually two hundred thousand cords of wood, at six dollars,	1,200,000
Equal at twelve bushels per cord to two millions four hundred thousand bushels, which at thirty cents per bushel (a very high estimate)	720,000

Saving—difference, . . . \$480,000

Again.

The totality of the assessment upon which our city and county tax is levied, amounts officially as above, to \$55,418,579

As it is well known that these assessments are made upon property valued *at least* at one half of their market price, I will double this sum, in order to come at an estimate of the *real estate* in the city and county of Philadelphia, which will be thus, \$110,837,158

Add to this bank stock in the city and county,† 17,516,000

128,353,158

* This includes the valuation of city and county by the assessors.

† Commercial bank,	Dolls. 1,000,000
Germantown,	152,000
Mechanics,	534,000
Northern Liberties,	250,000
Schuylkill,	400,000
Pennsylvania,	2,500,000
Farmers' and Mechanics',	1,250,000
Philadelphia bank,	1,800,000
Bank United States,	8,000,000
Girard's Bank,	800,000
Bank North America,	830,000

Dollars 17,516,000

Amount brought forward, . . . \$128,353,158
*Insurance stock,** . . . 3,800,000

Shipping.—Philadelphia owned in 1810, one hundred and twenty-five thousand two hundred and fifty-eight tons of shipping. She lost but little by the war, and that she has not only replaced, but is this year building several large ships. I suppose her present tonnage to be one hundred and thirty thousand at forty dollars per ton for vessels fully equipped, which will be . . . 5,200,000

Personal estate and merchandize.—It is impossible to do more than *conjecture* upon this subject. Under this item, I comprehend, bonds, *mortgages out of the city and county*, public stock, plate, furniture and merchandize of every kind. When we consider the many who invest their money in bonds in preference to bank or other stock; the quantity of valuable furniture, but above all, the number and opulence of the stores and shops, we must admit *personal estates and merchandize* to be equal *at least* to the one half of the real estate; as such I put them down, and in them include all the shares the Philadelphians may have in turnpike roads and bridge stock, 55,400,000

It is true that the state has a concern in our bank stock, to the amount of about two million one hundred thousand dollars; from which might be deducted the proportional interest which the city and county, as a constituent part of the state, had in this fund; but the whole, among so many millions, is too small an item to separate. Our merchants owe debts upon these sums; but debts are *stakes*; they are answerable for them, and must pay them, . . . \$192,433,158

* North America,	Dolls. 600,000
Pennsylvania,	500,000
Philadelphia,	400,000
Phenix,	480,000
Union,	300,000
Delaware,	200,000
United States,	100,000
Marine,	300,000
Fire Insurance offices, American and others, and offices for insuring lives,	1,000,000
	Dollars 3,880,000

N. B. I know that some of these companies have diminished their capitals, by buying in their own stock; but others again have large contingent funds; so that the one will balance the other.

THE PROPERTY AT STAKE, THEN, IN THE CITY AND COUNTY OF PHILADELPHIA, AMOUNTS TO NEAR TWO HUNDRED MILLIONS OF DOLLARS!

Foreign commerce, during the golden days of neutrality, and a monopoly of the best share of the western trade, have heaped together, in this small district, so vast a treasure. But our foreign commerce is less extensive and less gainful now, and rivals to the north and south are about to deprive us of our home trade. We must defeat their efforts; we must maintain, protect, and increase these riches. We can and will baffle the attempts of our neighbours. We have a *motive* in the defence of our *property*; we have the *means* in that *property* itself; and *nature* points out to us the *road*;—a road, broad, fair, safe, and interminable! If we follow it, we shall not only retrieve our lost ground, but insure to ourselves, without the possibility of rivalry from any quarter, the most brilliant career and highest destiny. We may command at one and the same time, the trade of the Great Lakes—of the Ohio—half the Mississippi—the whole of the Missouri—three parts of Pennsylvania,—and one third of New York;—and in such event—an event in train to be realized—we shall see the expectations of the great founder of our city fulfilled. We shall behold store-houses and commercial streets lining the banks of the Schuylkill, and receding east, until they meet those of the Delaware, and thus cover the vast area marked out by Penn, as the ground-plot of his city of brotherly love.

APPENDIX.

No. 1.

"Colonel James Johnston has contracted with the War Department," says a Cincinnati paper of June 16, "to furnish rations for the troops, to be stationed at the mouth of Yellow Stone River, 1800 miles up the Missouri. He has offered, or intends offering to convey munitions of war, baggage and provisions, to that point in *steam boats*. By that mode of conveyance, they will reach their place of destination in sixty days, that is to say, in one seventh the usual time. because by the common mode, they would not reach there before July or August, 1819."

This is a beginning. When our waters are united with those of the west, we can send these munitions of war, and this military baggage, as cheap from our own arsenals by steam boats, even to the Falls of Missouri, as they can be supplied from any other place in America.

No. 2.

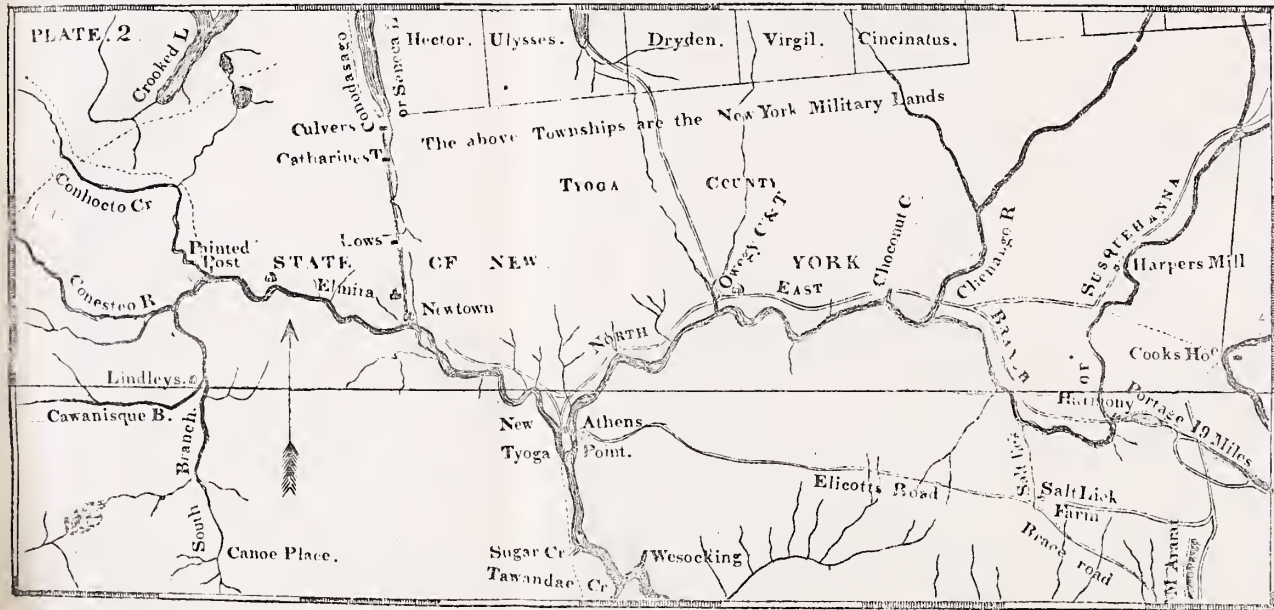
The Yellow Stone River offers the nearest route to the rocky mountains. It cuts off the great Falls of the Missouri, and has its head waters quite as high to those of Lewis' River, as those of Madison or Jefferson's Rivers; and if its navigation be not interrupted by falls, as I believe it is not, the distance from Philadelphia to the mouth of Columbia, **IN LAND CUTS**, will be eighteen miles less than before stated, and will be thus:

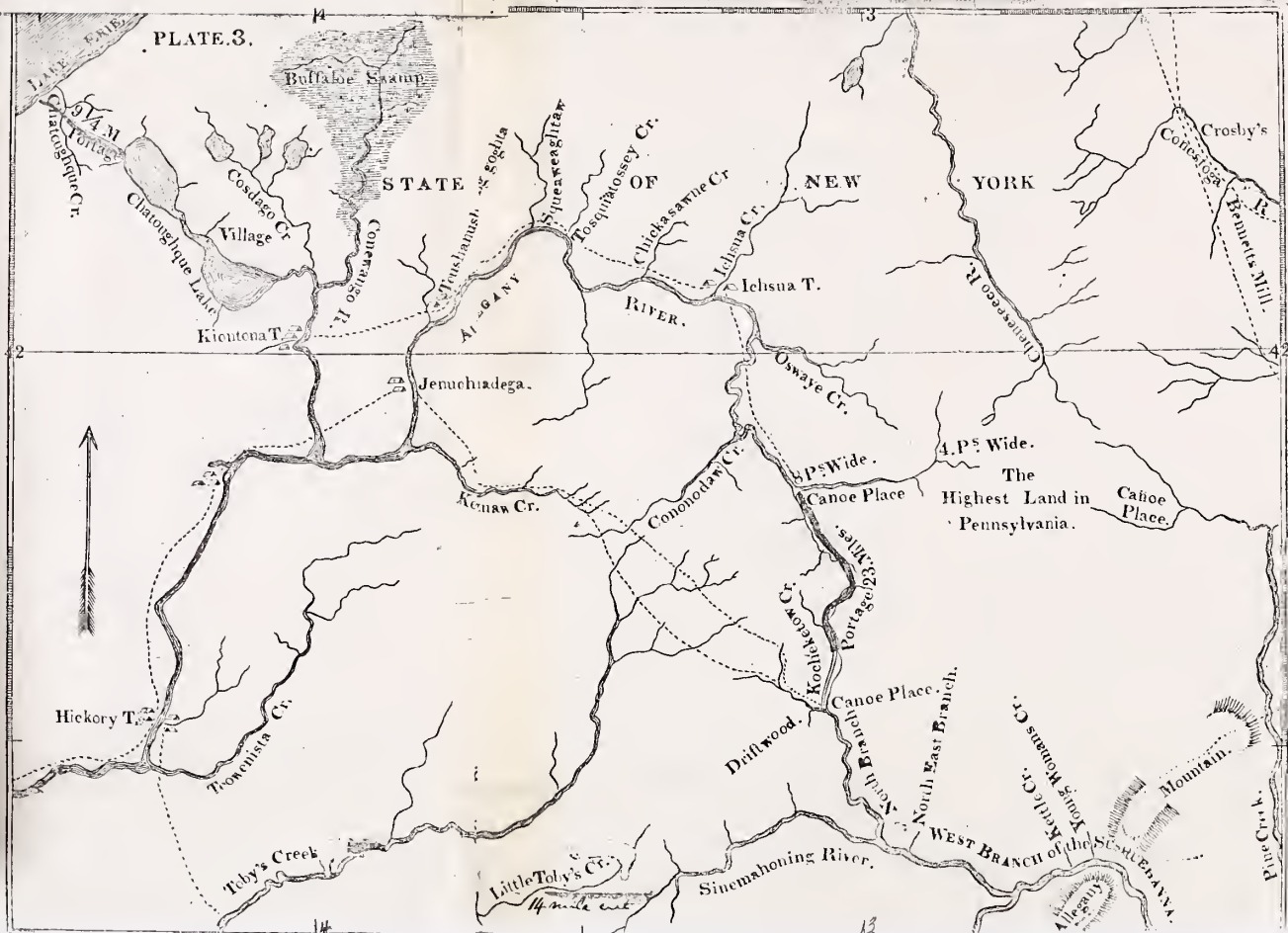
From Schuylkill to Susquehanna by Berwick	- - -	23 miles.
From West Branch of Sinnemahoning, which empties into the Susquehanna, to Toby's Creek, which empties into the Alleghany	- - - - -	14
From head waters of Yellow Stone River, to Lewis' River	-	20
		<hr/> 57 miles. <hr/>

Making only fifty-seven miles of land interruption (easily removed) between Philadelphia and the mouth of Columbia on the Pacific ocean.

Coal

PLATE 2





4359

